

FINAL ENVIRONMENTAL IMPACT STATEMENT
for
STPP 3-2(27)28
Fairfield to Dupuyer Corridor Study
Control No. 4051
in Teton and Pondera Counties, Montana

This document is prepared in conformance with the Montana Environmental Policy Act (MEPA) requirements and contains the information required for an Environmental Impact Statement under the provisions of ARM 18.2.237(2) and 18.2.243. It is also prepared in conformance with National Environmental Policy Act (NEPA) requirements for an Environmental Impact Statement under 23 CFR 771.123, and Section 4(f) of the 1966 U.S. Department of Transportation Act under 23 CFR 771.135. Submitted pursuant to 42 U.S.C. 4332(2)(c), 49 U.S.C. 303, Sections 75-1-201 & 2-3-104, M.C.A., and Executive Orders 11990, 11988, and 12898, by the

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

MONTANA DEPARTMENT OF TRANSPORTATION

and

U.S. Army Corps of Engineers as a Cooperating Agency

8-15-03

Date of Approval

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ABSTRACT: The proposed action is the reconstruction, widening, and realignment of a 74.3 km (46.2 mi) portion of US 89 from Fairfield, in Teton County, to Dupuyer, in Pondera County. These improvements are proposed to provide updated design features, improved safety and operation of the facility, and enhancements for recreational users of the corridor. The project would widen the route to include paved shoulders and improve horizontal and vertical curves to current design standards. Several typical section and alignment alternatives were analyzed throughout the corridor. The Preferred Alternative would provide a 10.8 m (36 ft) paved width throughout the corridor, and incorporate Alignment Alternatives A, E, H, I, K, and N to provide necessary geometric improvements while minimizing impacts to the surrounding built and natural environments.

EXECUTIVE SUMMARY

This document presents the results of the Corridor Study conducted for the portion of U.S. Highway 89 (US 89) from Fairfield, in Teton County, to Dupuyer, in Pondera County. This document was prepared in conformance with the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA) requirements, and contains the information required for an *Environmental Impact Statement*.

This document identifies potential social, economic, and environmental impacts that would result from the proposed reconstruction, widening, and realignment of US 89 in this corridor. Mitigation measures to address potential adverse impacts are also identified.

Proposed Action

MDT is proposing to reconstruct, widen, and realign US 89 from approximately 5.8 km (3.6 mi) north of Fairfield (approximately 32 km (20± mi.) west-northwest of Great Falls) to a location approximately 0.6 km (0.4 mi) south of Dupuyer, for a total length of approximately 74.3 km (46.2 mi). Existing bridges, culverts, and stockpasses would be replaced, and new right-of-way will be required throughout the corridor.

The Preferred Alternative would provide a 10.8 m (36 ft) paved width to include two 3.6 m (12 ft) driving lanes, and 1.8 m (6.0 ft) shoulders.

Purpose and Need

MDT has identified the US 89 corridor for improvements generally due to its outdated design, including inadequate passing opportunities, narrow shoulders, sharp curves, and poor operations due to the mix of recreational vehicles, trucks, and passenger vehicles. Another factor in its identification for improvements is the corridor's attractiveness as a recreational route. The existing facility is a paved, two-lane, minor rural arterial traveling from Yellowstone National Park on the south, to Glacier National Park and the Canadian border on the north. US 89 is located roughly parallel to Interstate 15 (I-15) within the proposed study corridor, and serves as a more scenic alternate route between Great Falls and Glacier National Park.

The proposed project is intended to enhance not only the safety and efficiency of this route, but also to provide recreation-related enhancements for those travelers. The purpose of the proposed project is four-fold. The overall intent is to:

- Provide a facility with updated design features,
- Improve safety of travel through the corridor,
- Provide an acceptable Level of Service in the corridor through the year 2023, and
- Provide enhancements for recreational users.

The existing facility exhibits substandard horizontal and vertical curves, areas with poor stopping sight distance, poor intersection geometry, and substandard roadway width. Several bridges are also functionally obsolete and eligible for replacement.

US 89 is regarded as one of the most scenic routes along the Rocky Mountain Front by many residents in this part of the state. Coupled with the fact that it provides access to/from both Yellowstone and Glacier National Parks, US 89 provides access to regional attractions such as Freezeout Lake, Teton Pass ski area, Bynum Reservoir, and some of the region's most renowned archeological sites. Thus, this route serves as a recreational corridor for local, regional, national, and international tourists for a variety of destinations and in every season.

Residents and business owners throughout the corridor have noted the high usage of the highway by bicyclists, and have expressed their desire to provide a safer and more attractive facility for those travelers. US 89 has been improved and widened on the north end of Fairfield, just south of the project terminus.

As a part of this project, MDT also intends to assess opportunities for scenic pull-outs along the route. Provision of pull-outs will provide enhanced recreational opportunities as well as improved safety by reducing the number of vehicles stopping at inappropriate locations.

Alternatives Analysis

Through an active public involvement program, MDT has received input from agencies, elected officials, businesses, and local residents within the US 89 study corridor to develop, evaluate, and refine the alternatives presented in the EIS. General concerns raised through the public and agency involvement process included shoulder widths to accommodate bicyclists, preservation and/or enhancement of the aesthetic character of the corridor, and improving the general driving conditions, particularly in the northern portion of the corridor where substandard curves, inadequate sight distances, and steep grades are more prevalent.

A set of evaluation criteria was established to help guide the refinement of the alternatives developed under this study. To be considered for further evaluation, all alternatives had to affirmatively answer the following questions:

- Does it meet MDT standards?
- Does it follow AASHTO guidelines (unless prescribed by MDT standards)?
- Are the improvements cost effective?
- Does it adequately consider impacts to the built and natural environments?
- Does it provide for bicycle and pedestrian improvements?
- Does it adequately consider the scenic value?
- Does it encourage tourist travel in the corridor?

Several alignments, typical section widths, and other design features were evaluated during this process.

Typical Section Width Alternatives

The existing typical section width of US 89 within the study corridor does not meet current design standards for a Rural Minor Arterial, as defined by MDT. The existing facility provides only the minimum driving lane width ($3.6\pm$ m [$12.0\pm$ ft.]), and narrow to non-existent shoulders. This condition was forwarded as the “No-Build” alternative, and compared to two additional typical section width alternatives described below.

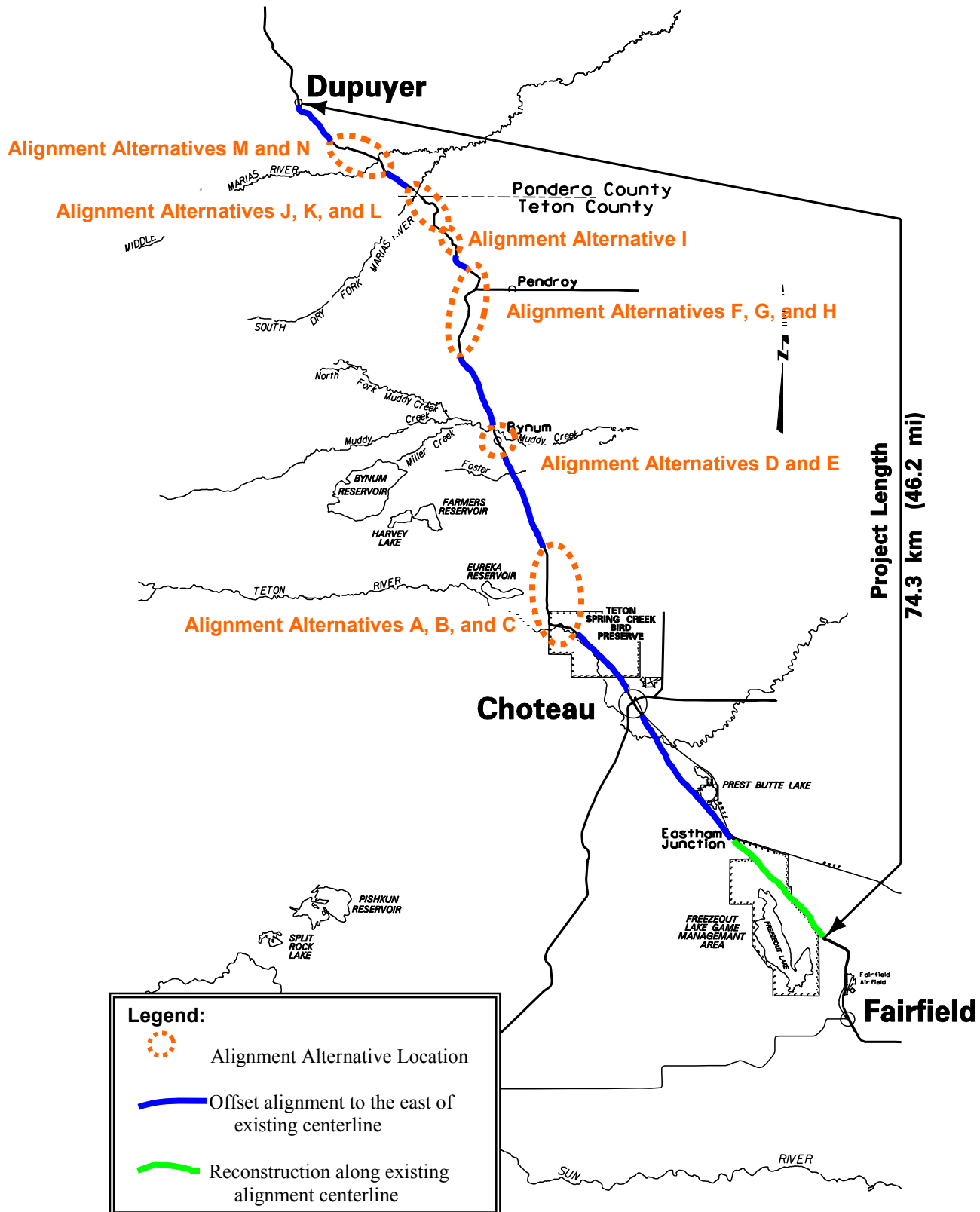
The first typical section width alternative is based on the Route Segment Plan, which identifies a future width for US 89 of 9.6 m ($32.0\pm$ ft) from Fairfield to just north of Choteau, and narrowing to 8.4 m ($28.0\pm$ ft) from Choteau to the end of the route. Based on input from the local communities within the corridor, a second, wider typical section width alternative was developed to address the desire to encourage bicycle and pedestrian travel in this corridor. This 10.8 m (36 ft) typical section width is the preferred width for the entire corridor.

Alignment Alternatives

Throughout a large percentage of the corridor, there are only two alternatives with regard to the alignment: the No-Build Alternative, which would provide routine maintenance to the existing facility, and the Build Alternative, which would reconstruct the roadway generally along the existing alignment, but offset approximately 15 m (50 ft) east of the existing centerline. An offset alignment is preferable for several reasons. Construction of a new alignment immediately adjacent to the existing allows for the new roadway to be constructed while the existing roadway is still completely open to traffic. This reduces potential hazards to travelers in the corridor, and minimizes any increased travel time costs due to construction delays. Some delays, however, are inevitable due to curiosity slowing. An offset alignment also reduces the number of individual parcels that will be required for new right-of-way by acquiring new right-of-way only on one side of the new roadway. The new construction limits (including cuts through hills and fill slopes in low lying areas) will incorporate the majority of the existing roadway embankment and paved surface. Any portion of the existing roadway or embankment that is not fully incorporated into the new roadbed or side slopes will be re-graded and seeded with desirable vegetation. An offset alignment can also result in a savings in construction costs associated with earthwork and traffic control. A shift to the east was preferred due to the lack of development and/or agricultural activity or any other sensitive resources in the abandoned railroad right-of-way located immediately parallel to US 89 through the middle third of the corridor.

Fourteen additional alignment alternatives were evaluated in six general locations throughout the corridor. These alignment alternatives were intended to provide a range of possible geometric improvements in areas with substandard curves. The alternatives ranged from minor curve corrections to satisfy minimum standards, to major alignment deviations from the existing alignment onto new alignments. The location of these alignment alternatives is depicted in Figure S-1. Table S.1 provides the screening analysis of these alternatives.

Figure S-1
Alignment Alternative Locations



**Table S.1
Screening Evaluation Summary**

Alignment Alternative	Status	Rationale
No Build	Retain	Does not meet purpose and need, or the evaluation criteria, but is being retained for comparison as the baseline condition.
A	Retain	Improves the roadway geometry through the Spring Creek area with minimal disturbance to the surrounding built and natural environment.
B	Retain	Improves the roadway geometry through the Spring Creek area with moderate disturbance to the surrounding built and natural environment. Has potential Section 4(f) impacts.
C	Retain	Improves the roadway geometry through the Spring Creek area with moderate disturbance to the surrounding built and natural environment. Has the greatest impacts to wetlands compared to A and B.
D	Eliminate	As essentially a bypass of Bynum, it is inconsistent with the intent to promote and enhance the recreational opportunities within the corridor. It was widely criticized during public input as having a potentially detrimental economic impact on Bynum.
E	Retain	Provides an improvement to the geometrics of the roadway and an improved crossing of Muddy Creek.
F	Eliminate	Provides a substantial improvement in the alignment but requires extensive right-of-way through ranchland. This alternative does not satisfy the criteria to minimize impacts, and would not be cost effective compared to G and H.
G	Retain	Provides a substantial improvement in the alignment, but may require extensive cut and fill. Depending on the cost comparison to Alternative H, it may still satisfy the evaluation criteria.
H	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.
I	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.
J	Eliminate	Provides a substantial improvement in the alignment, but requires extensive right-of-way through ranchland that, according to local landowners, may be unsuitable for roadway construction. This alternative also fails to satisfy the evaluation criteria regarding minimization of impacts and cost effectiveness when compared to K and L.
K	Retain	Provides substantial improvement in the alignment, but much less right-of-way than Alignment J.
L	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.
M	Eliminate	Provides a substantial improvement in the alignment, but requires extensive right-of-way through cultivated fields and ranchland. This alternative fails to satisfy the evaluation criteria regarding minimization of impacts and cost effectiveness when compared to N.
N	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.

Source: BRW, Inc. (2002)

Additional Enhancement Elements

Additional elements are included in all Build Alternatives in an attempt to provide enhancements based on the broad goals of the evaluation criteria. These include the following:

- Provision of islands to help direct traffic, and requiring one-way travel on the entire traffic circle in Choteau by eliminating the left turn (eastbound to northbound) onto Main Street from Hwy 287, and elimination of the parking area on the north side of the courthouse.
- Installation of a four-way stop at 1st and Main in Choteau. MDT is proposing to replace the existing overhead flasher assembly with an upgraded four-way red assembly. Stop signs would also be placed on all four legs of the intersection.
- Elimination of the curve at the Old Trail Museum in Choteau to improve the sight-line on the north end of town, and reduce the potential for conflicts with vehicles backing out of the restaurant. Modifications to the parking area at the Old Trail Museum will be required.
- As the corridor is frequently used by recreational travelers destined for Freezeout Lake or heading to or from Yellowstone and/or Glacier National Park, MDT has considered providing wildlife viewing areas and scenic pullouts along the route to provide safe opportunities for travelers to stop and enjoy the surrounding environment. MDT proposes to improve four existing parking areas at Freezeout Lake, two existing historic marker pullouts north of Choteau, and six scenic pullouts in the northern portion of the corridor. These new pullouts are proposed at approximately RP 53 near the Savik Waterfowl Production Area, RP 57 north of Bynum near Jones Coulee, at RP 65 south of Spring Creek (Welenstein Coulee), at RP 67 near the radio tower, at RP 70 near at County Road 322, and at RP 72 above Jensen Coulee.
- New signing, that is in conformance with MDT Policies and the Manual on Uniform Traffic Control Devices (MUTCD), will clearly identify the parking areas, scenic pullouts, local attractions, historical and archeological sites, regional attractions, and local specific services. These are intended to highlight the recreational nature of the corridor and encourage more tourism-related activity within the corridor.
- Realignment of intersections throughout the corridor to more desirable angles is also proposed. These intersections are located at: the County Road at approximately RP 29.8, Eastham Junction at RP 34.1±, Miller Lane at RP 39.1±, an approach road to the Miller Colony at RP 52.1±, Pendroy Junction at RP 62.7±, a residential access at RP 69.5±, and the County Road at RP 69.7±.

Impacts and Mitigation

For many of the areas of social, economic, and environmental concern, the various alternatives considered under the Build Alternative do not present quantifiable differences in impacts. In those instances, a general discussion of the impacts from the overall Build Alternative is presented. Where quantifiable differences can be demonstrated, a more

detailed explanation of those impacts is presented. A summary of mitigation commitments follows each summary discussion, and applies to all Build alternatives.

Land Use Impacts

The minimal increase in capacity would not be of a magnitude to induce unplanned growth or development in the study area. The proposed project is not intended to induce growth, but instead to bring the condition of the road up to current standards in order to accommodate existing and planned growth, and encourage recreational use.

There are no impacts to parks, recreational facilities, or wildlife/waterfowl refuges protected by *Section 4(f)*, and no impacts to any *Section 6(f)* properties within the corridor.

Through the Freezout Lake Wildlife Management Area (WMA), the proposed project would reconstruct US 89 on or very near the existing centerline, and would not impact the WMA property. Side slopes will be steepened where necessary to ensure that the construction limits remain within the existing right-of-way, and to minimize any wetland impacts. According to the BRR, reconstruction of the existing alignment will have only temporary impacts to waterfowl utilizing the area. Thus the proposed roadway widening, and improvement of the parking areas, is anticipated to have a positive overall impact for the users of the WMA. Roadway widening at the Savik Waterfowl Production Area (WPA) would occur to the east (away from) the WPA and have no impact on that resource.

No mitigation is required.

Transportation Right-of-Way

With the exception of Freezout Lake WMA and the urban sections in Choteau and Bynum, new right-of-way will be required throughout the corridor. The anticipated right-of-way impacts from the Preferred Alternative total 241.02 ha (595.58 ac).

All lands required for the proposed improvements will be acquired in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*. Compensation for right-of-way acquisitions would be made at fair market value for the “highest and best use” of the land.

Farmland Impacts

None of the proposed improvements under the Build Alternative(s) would impact any of the Prime and Unique Farmlands, or Farmland of Statewide or Local Importance as identified by the NRCS.

Any irrigation ditches impacted by any of the proposed improvements will be reconstructed. These impacts will be short term and temporary, and will be coordinated with the ditch owner.

No mitigation is required.

Social Impacts

The communities within the study corridor have been growing slowly, and many are anticipating that improvements to US 89 may spawn new interest in the area. For this reason, alternatives to bypass Choteau and Bynum have been eliminated due to their potential negative impacts to these communities. The proposed roadway improvements would have no affect on the community characteristics or trends. No community or public facilities or services would experience negative impacts as a result of the proposed project, but they could experience enhanced accessibility due to the anticipated safety and operational improvements on US 89. Pursuant to *Title VI* of the U.S. *Civil Rights Act* and E.O. 12898, the proposed action will not disproportionately impact any ethnic, low income, or minority groups.

No mitigation is required.

Economic Impacts

It is not anticipated that the proposed improvements to US 89 will have a dramatic or lasting economic impact on the area. During the construction phase of the project, there will be additional jobs and a greater demand for hotel and restaurant accommodations. There may be a small amount of additional traffic in the northern section of the corridor where the horizontal and vertical curves will be greatly improved.

No mitigation is required.

Pedestrian and Bicycle Facility Impacts

The typical section(s) identified in the Route Segment Plan do not provide the AASHTO-recommended shoulder width for bicycle use, particularly if they include rumble strips. While these typical sections do provide the minimum design according to current MDT policy, the 10.8 m (36 ft) typical section alternative was developed to provide a wider clear path for bicyclists to encourage their use of the US 89 corridor. For this reason, the 10.8 m (36 ft) typical section width is the preferred alternative throughout the corridor. An extension of the sidewalk facilities on the north end of Choteau is also proposed.

No mitigation is required.

Air Quality Impacts

This proposed project is located in an unclassifiable/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's "Final Rule" of September 15, 1997 on Air Quality conformity. Therefore, both the "No Build" and the "Build" alternative(s) comply with Section 176(c) of the Clean Air Act (**42 U.S.C. 7506(c)**), as amended.

No mitigation is required.

Noise Impacts

Only one receiver along the existing alignment is projected to experience future noise impacts under the Preferred Alternative. The noise level at the residence at approximately RP 39.2 is expected to be 66 dBA, which is within 1 dBA of the Noise Abatement Criteria of 67 dBA and is considered a noise impact.

Due to the limited effectiveness (and cost ineffectiveness) of noise mitigation for an isolated residence or affected land use, no noise mitigation is proposed for this project.

Water Quality Impacts

Impacts to drainages from the Preferred Alternative will primarily result from bridge and culvert removal and construction. Instream work associated with construction could result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity downstream of the project area.

Encroachments into watercourses will be avoided or minimized to the extent possible. MDT will re-establish a permanent desirable vegetation community over all landform surface areas disturbed by construction for this project. MDT will develop a set of revegetation guidelines that must be followed by the contractor. An erosion control and sediment plan for the proposed alignment will be submitted to the MDEQ's Permitting and Compliance Division, Water Protection Bureau, in compliance with the Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314). Best Management Practices will be used in the design of this plan, based on guidelines being developed by MDT. The MDEQ Permitting and Compliance Division, Water Protection Bureau will also evaluate waterbodies listed on the applicable 303(d) List for Total Maximum Daily Load (TMDL) compliance.

Mitigation will include culverts and bridges designed to accommodate flood flows with no substantial changes in flood elevations. Culverts will be designed to match the hydraulic traits (depth, velocity, and patterns) of natural streams. During the permitting process, culvert and bridge design will be coordinated with appropriate resource and permitting agencies.

Wetland Impacts

In all but one case involving Category III wetlands, the Preferred Alternative consists of those alignment alternatives with the least wetland impacts, and efforts have been made to avoid and/or minimize impacts to Category I and II wetlands throughout the corridor by reducing the construction limits from the standard 6:1 to 4:1 fill slopes.

Impacts to wetland areas through Freezout Lake were avoided and/or minimized by maintaining the proposed alignment on the existing roadway centerline, or immediately adjacent to the existing roadway centerline where feasible.

With these avoidance and minimization efforts in place, the Preferred Alternative is anticipated to impact approximately 12.24 ha (30.22 ac) of wetlands throughout the corridor.

Mitigation opportunities to compensate for potential wetland impacts resulting from the proposed project are currently being discussed and developed with the Freezout Lake WMA managers. The northeast portion of the Freezout Lake WMA is an option for wetland development and/or enhancement sites. On the north end of Freezout Lake WMA, there is available water sufficient to support a system of level ditches designed to act primarily as waterfowl pairing and nesting habitat. Another option, although less desirable than the Freezout Lake WMA, is the periphery of the Savik Waterfowl Production Area west of US 89 along the Foster Creek drainage. According to the BRR, potential mitigation opportunities exist to restore and/or enhance areas of stream habitat along the Teton River west of the project area, if this type of compensatory mitigation is deemed satisfactory mitigation for the proposed wetland impacts.

Water Body Modifications and Wildlife Resource Impacts

Impacts to drainages in the project area will primarily result from bridge and culvert removal and replacement. Instream work associated with construction could result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity downstream of the project area. Impacts to wildlife would be limited to areas along the existing alignment and areas where new alignments are proposed. Widening the highway to include shoulders would not greatly impact wildlife species in the area. Impacts to common wildlife species would have no adverse effect based on the abundance of similar habitats in the vicinity of the project area.

As mitigation, MDT will reestablish a permanent vegetation community in disturbed areas and will develop revegetation guidelines that the contractor must follow. MDT standard specifications for roadside revegetation will be followed. Rapid re-seeding of disturbed areas with desired plant species will help to prevent the establishment of early successional species.

Species of Concern

According to the BRR, there should be little overall impact to bird species of concern. Nesting for the majority of bird species that use Freezout Lake WMA occurs primarily in the Main Lake south of Pond 6, and in and around the alkali flats of the Main Lake. To prevent disturbance to nesting Black Tern at Freezout Lake WMA, all construction activities will be postponed from May 1 to August 1 between RP 30.4 and 32.4 if nesting Black Tern are present within the construction limits.

Floodplain Impacts

The floodplains within the study area have been designated by FEMA for the regular program of the National Flood Insurance Program. These mapped areas are administered by DNRC pursuant to 23 CFR 650.111.

The designated floodplains for the Teton River, Spring Creek, and Muddy Creek would be encroached transversely under any of the alignment alternatives. Each of the transverse floodplain encroachments would be at existing creek crossings and are unavoidable. The Preferred Alternative is on or immediately east of the existing US 89 embankment, and outside the delineated floodplain for the Teton River. The Spring Creek floodplain, north of Choteau, would be encroached both longitudinally and transversely through the widening of the existing roadway. The longitudinal encroachment occurs at the southerly end of Alignment Alternative A and is unavoidable. This encroachment does not impact the carrying capacity of the river, nor does it increase the flood risk.

Further north in the corridor, the Preferred Alternative transversely crosses the Muddy Creek floodplain near the existing crossing and would not create an additional crossing or encroachment.

These transverse encroachments would not adversely impact the floodplains where bridges and culverts are required, provided that the structures are sized during final design such that the increase in water surface elevation from the base flood elevation is 0.15 m (0.5 ft) or less.

No mitigation is required, however, a floodplain development permit will be required from the Teton County Floodplain Administrator.

Threatened and Endangered Species Impacts

Early coordination with USFWS and MFWP determined that formal *Section 7* consultation under the *Endangered Species Act* was not required.

The proposed project was determined to have **No Effect** on five of the six federally-listed species. The proposed project **May Affect, is not likely to adversely affect** the grizzly bear.

The following mitigation/coordination measures are required to ensure that impacts to the Grizzly Bear are minimized:

- To avoid and minimize impacts to Grizzly Bears foraging and bedding areas near the US 89 project corridor, construction activities will not be allowed from April 15 to May 31 from RP 39.0, approximately 0.64 km (0.4 mi) south of the Teton River, to RP 56.0 approximately 0.48 km (0.3 mi) north of Muddy Creek.
- New bridge structures of equal or greater length, particularly at Teton River, Foster Creek, and Muddy Creek, will be considered in the interest of perpetuating the configuration of the stream and associated riparian and wetland habitats that are known to be used as Grizzly Bear travel corridors.
- Proper daily waste removal from all staging areas and road crew quarters would minimize bear-human conflict. Garbage will be properly disposed of in Grizzly Bear-proofed containers and will be removed daily. Any spills or litter will be cleaned up

immediately, and possible attractants (such as antifreeze and petroleum products) will be properly stored so as not to attract Grizzly Bears.

- Vegetation clearing within the right-of-way of US 89 will be kept to a minimum in the major riparian drainages (Teton River, Muddy Creek, and Foster Creek) to maintain cover for Grizzly Bears.

Historic, Archeological, and Paleontological Resource Impacts

There are no impacts to any historic, archeological, and/or paleontological resources with the Preferred Alternative.

The Old Agency historical marker will require relocation with Alignment Alternatives A, B, or C, but none will impact the actual site.

Mitigation is not required.

Hazardous Waste Impacts

There are potential issues concerning hazardous substances or solid waste on or adjacent to this project. During the design phase of this project, further evaluation or mitigation needed for hazardous materials would include:

- Further investigation will be conducted regarding hazardous material spills and UST leaks based on the information found during database searches.
- Proper disposal procedures need to be addressed for treated railroad timbers, old tires, abandoned pipeline, tanks and drums.
- Disposal procedures for oil field wastes will be verified since US 89 provides access to active oil wells and oil fields.

Likely mitigation practices for soils potentially contaminated with hydrocarbon, if encountered, include direct disposal or an on-site application treatment (land farming). Contaminated soils may be re-used at the direction of MDEQ and MDT. Disposal of soils potentially contaminated with hydrocarbon fuel compounds will be done in accordance with guidance and approvals obtained from the MDEQ, Teton County, and Pondera County, which are decided on a case-by-case basis.

Visual Resource Impacts

Changes in the horizontal and vertical alignment through most of the corridor is not severe enough to change the views from or of the highway. The provision of scenic pullouts and parking areas will, however, provide an enhanced opportunity to enjoy the scenic character of the corridor. The proposed improvements will enhance the overall visual experience in the corridor.

Efforts will be made to revegetate side slopes with native vegetation to minimize the visual impact. No additional mitigation is anticipated.

Cumulative Impacts

Cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

None of the towns or counties within the study area have projects that will result in any cumulative impacts. The following project is located within proximity to the proposed US 89 corridor improvements:

US Highway 89 – Browning to Hudson Bay Divide

This Corridor Study was initiated to assess similar needs, deficiencies, and opportunities as the corridor study from Fairfield to Dupuyer. The Browning to Hudson Bay Divide project is still in the early planning stage, and no impacts have been quantified to date. The project will be fully assessed through an Environmental Impact Statement.

It must be recognized that growth and development are influenced by a complex interaction of natural and built environments, economic conditions, and individual perceptions. Growth of an area is dependent on such factors as the availability of jobs, quality of life, property taxes, and quality and availability of schools and other public services.

Because this area is not currently experiencing, nor is it anticipated to experience, substantial increases in population or employment, and because the proposed improvements to US 89 would essentially maintain the existing roadway at two lanes very near its current alignment, it is not anticipated that this proposed action individually or cumulatively, when considered with the other projects, would have any substantial cumulative impacts relating to induced growth and development. Further, it is anticipated that any increase in tourism-related activity as a result of the proposed project would simply serve to maintain the status quo in this flat-growth area of the state.

Permits Required

As construction of this proposed project may be in the distant future, no permits will be acquired in the short term. The following permits will, however, be required prior to any relevant disturbances:

This proposed project would be in compliance with both the water quality provisions of 75-5-308 M.C.A. for Section 318 authorizations, and stream protection under Sections 87-5-501 through 509 M.C.A., inclusive. A 124 SPA Stream Protection Permit will be requested from the MFWP. An on-site review of this proposed project, with representatives from MFWP and MDT, would be scheduled if necessary. All comments, suggestions, and/or conditions resulting from review of existing data and/or on-site inspections would be documented,

included in this proposed project's files, and taken into account in the final design specifications.

The proposed project would also require the following under the Clean Water Act (33 U.S.C. 1251-1376, as amended):

- A Section 402/Montana Pollutant Discharge Elimination System (MPDES) authorization from the MDEQ's Permitting and Compliance Division. The Build Alternatives would require new right-of-way and require an MPDES construction phase permit, which is issued in response to the 1987 re-authorization of the Clean Water Act. The Clean Water Act requires the U.S. Environmental Protection Agency to institute a National Pollutant Discharge Elimination System (NPDES) permitting program for storm drainage systems or to approve the state's programs. EPA approved Montana's program in 1987.

Obtaining the MPDES permit requires development of a storm water pollution prevention plan that includes a temporary erosion and sediment control plan. The erosion and sediment control plan identifies Best Management Practices (BMP's), as well as site-specific measures to minimize erosion and prevent eroded sediment from leaving the work zone.

- A Section 404 permit from the U.S. Army Corps of Engineers would determine if this project qualifies for a nationwide permit under the provisions of 33 CFR 330. Projects impacting waters of the U.S. (including wetlands and special aquatic sites) require a Section 404 permit.

All work would also be in accordance with the Water Quality Act of 1987 (P.L. 100-4), as amended.

A FEMA floodplain development authorization would also be required from the Teton County and Pondera County floodplain administrator(s).

Areas of Controversy

There are no outstanding areas of controversy.

Conclusion

Based on public input, the screening analysis outlined above, and a balanced consideration of the social, economic, and environmental impacts and the mitigation included as part of the proposed project, MDT has identified a Preferred Alternative for this corridor. Considering the desire to accommodate bicycle travel within the corridor, the 10.8 m (36 ft) typical section is the preferred typical section width.

Out of the fourteen alignment alternatives introduced during the public involvement process, four have been eliminated due to the fact that other alternatives can feasibly accomplish the

same goals with fewer impacts and less cost. While all of the remaining alignment alternatives can feasibly satisfy the purpose and need, and the evaluation criteria, MDT has identified a preferred corridor alignment that would include the offset alignment described previously, plus Alignment Alternatives A, E, H, I, K, and N. This combination of alternatives provides the most reasonable geometric improvements necessary to bring US 89 up to current standards, while minimizing impacts to adjacent properties and resources.

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LIST OF TECHNICAL REPORTS

1. Cultural Resources Inventory (Historical Research Associates, Inc., 2000)
2. Biological Resources Report (URS/BRW Inc., 2002)
3. Traffic Noise Study (Big Sky Acoustics, 2002)
4. Preliminary Geotechnical Evaluation (Hyalite Environmental, 1999)
5. Hazardous Materials/Substances & Water Quality – ISA (Hyalite Env., 1999)

Note: Copies of Technical Reports are available for review from MDT at:

Montana Department of Transportation
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AMERICANS WITH DISABILITIES ACT

In compliance with the Americans with Disabilities Act, alternative formats will be made available on request.

METRIC CONVERSION

In accordance with recent Executive orders and Secretary of Commerce direction, Federal Highway Administration (FHWA) and supporting agency plans are to be presented in metric units. Where appropriate, this document reflects both English and metric units side by side to assist the reader. The metric unit is shown first followed by the English unit in parentheses; for example, 13.7 kilometers (8.5 miles). The following is a brief summary of the conversion factors and units used in this document:

<u>English Units</u>	<u>Metric Units</u>	<u>Conversion Factor</u>
foot (ft)	meter (m)	0.3048
mile (mi)	kilometer (km)	1.6094
acre (ac)	hectare (ha)	0.4047
miles per hour (mph)	kilometers per hour (km/h)	1.6094

ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ac	acre(s)
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
APE	Area of Potential Effect
ARIS	Aerometric Information Retrieval System
BMP	Best Management Practices
BNSF	Burlington Northern Sante Fe
BNRR	Burlington Northern railroad
BRR	Biological Resources Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CoE	U.S. Army Corps of Engineers
dBA	□-weighted decibel
DEIS	Draft Environmental Impact Statement
DEQ	Montana Department of Environmental Quality
DNRC	Montana Department of Natural Resources and Conservation
DOI	Department of the Interior
EIS	Environmental Impact Statement
E.O.	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act

FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
ft	foot (feet)
ha	hectare(s)
HCM	Highway Capacity Manual
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
km	kilometer(s)
km/h	kilometers per hour
Leq(h)	constant sound level per hour
LOS	Level of Service
m	meter(s)
MDT	Montana Department of Transportation
MEPA	Montana Environmental Policy Act
MFWP	Montana Fish, Wildlife and Parks
mi	mile(s)
MNHP	Montana Natural Heritage Program
MPDES	Montana Pollutant Discharge Elimination System
MRIS	Montana River Information System
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
RCRA	Resource Conservation and Recovery Act
RP	Reference Post (Mile Post)
SHPO	Montana State Historic Preservation Office
TMDL	Total Maximum Daily Load
TRIS	Toxic Relief Inventory (State)
USDOT	U.S. Department of Transportation
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

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Final

Environmental Impact Statement

Project Number: STPP 3-2(27)28
Control No. 4051

August 2003

Prepared for:
Montana Department of Transportation



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1.0 PURPOSE OF AND NEED FOR PROJECT

This chapter is intended to objectively inform the public and decisionmakers of the transportation issues in the Fairfield to Dupuyer corridor. This chapter identifies the project limits, the purpose the proposed improvements are intended to serve, and the need for such improvements.

1.1 Description of the US 89 – Fairfield to Dupuyer Corridor

U.S. Highway 89 (US 89) is a paved, two-lane, minor rural arterial located in north-central Montana. The route travels from Yellowstone National Park on the south, to Glacier National Park and the Canadian border on the north.

Figure 1-1 illustrates the general project location, and Figure 1-2 illustrates the limits of the study corridor. The corridor is located in Teton and Pondera Counties, and begins approximately 5.8 kilometers/km (3.6± miles/mi.) north of Fairfield, approximately 32 km (20± mi.) west-northwest of Great Falls. The study corridor extends north-northwesterly to a location approximately 0.6 km (0.4± mi.) south of the town of Dupuyer. The total length of the project is approximately 74.3 km (46.2± mi.) in length.

As pictured, US 89 is located roughly parallel to Interstate 15 (I-15) within the study corridor, and serves as an alternate route between Great Falls and Glacier National Park.

The Corridor Study was nominated by the Montana Department of Transportation (MDT) Great Falls District to examine potential improvements to US 89 and/or the feasibility of realignment of the route.

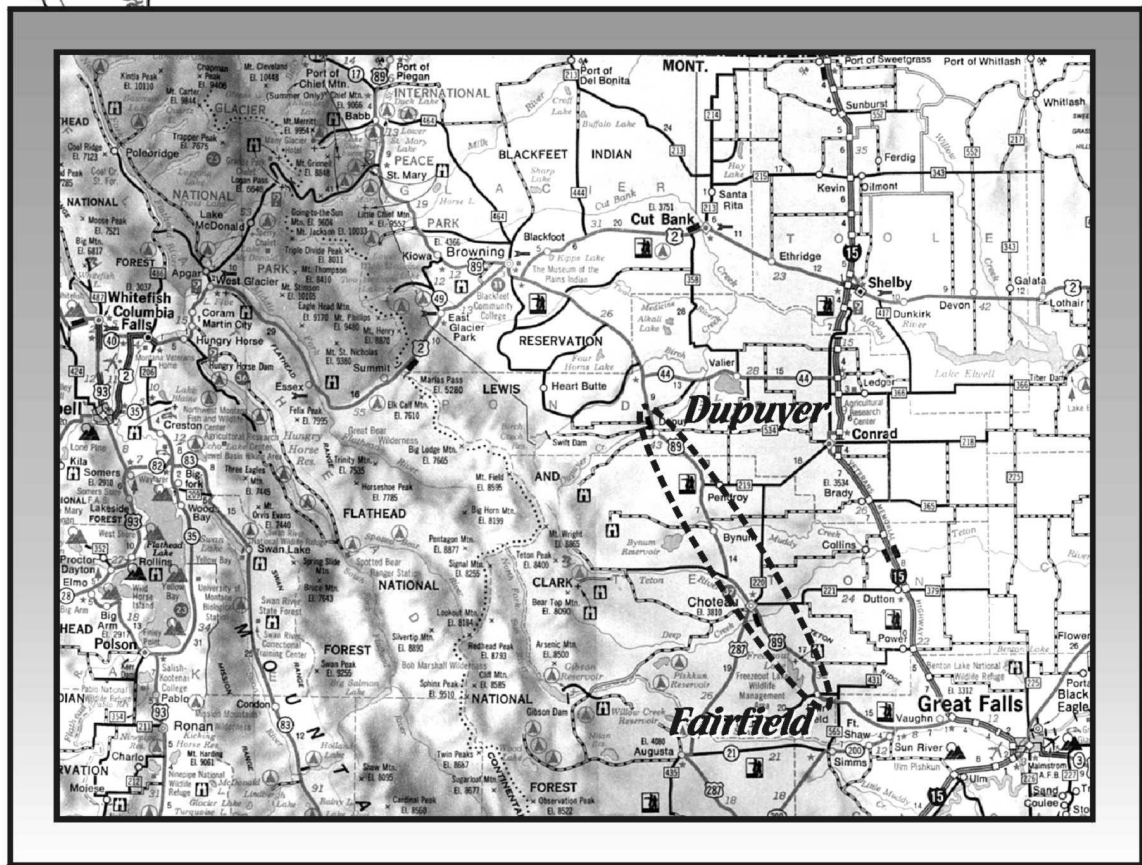
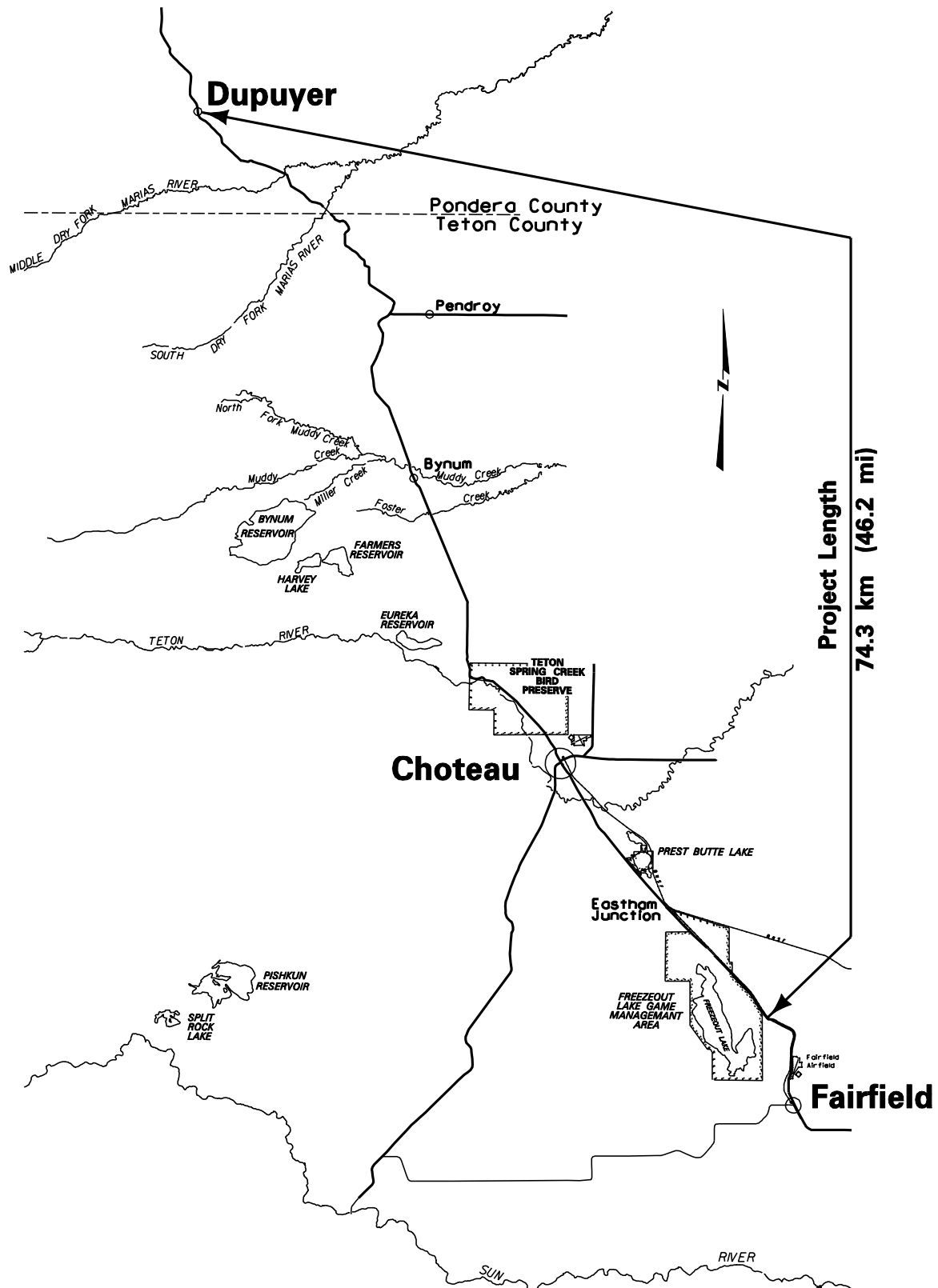
**Figure 1-1
Project Location****PROJECT LOCATION MAP**

Figure 1-2
Study Corridor Limits



1.2 Purpose of the Proposed Action

The US 89 corridor has been identified for improvements generally due to its outdated design, including inadequate passing opportunities, narrow shoulders, sharp curves, and poor operations due to the mix of recreational vehicles, trucks, and passenger vehicles. Another factor in its identification for improvements is the corridor's attractiveness as a recreational corridor. The route connects Yellowstone National Park to the south, with Glacier National Park to the north, and serves as a more scenic alternative to I-15. The project is intended to enhance not only the safety and efficiency of this route, but to provide recreation-related enhancements for those travelers. The purpose of the proposed project is four-fold. The overall intent is to:

- Provide a facility with updated design features,
- Improve safety of travel through the corridor,
- Provide an acceptable Level of Service in the corridor through the year 2023, and
- Provide enhancements for recreational users.

1.3 Need for the Proposed Action

The Surface Transportation Program (STP) Route Segment Plan identifies US 89 as a Non-National Highway System Primary Route. The Route Segment Plan serves as a guide for future roadway improvement projects based on current and projected travel demand. The Plan provides the basis for prioritizing projects and planning future investments to maintain the overall integrity of the state highway system.



Photo 1-1: View of the northern portion of the corridor, north of Pendroy Junction.

MDT developed the design criteria contained in the *Montana Road Design Manual* (Revised April 2001) to provide facilities that would safely and efficiently operate at a given design speed, and with the anticipated traffic volumes by the year 2023. These criteria were used in the conceptual design for the proposed improvements to US 89 in this corridor. Any variance from these criteria must be justified by unusual circumstances such as substantial impacts to sensitive environmental resources or extraordinary costs, and will require a design exception from MDT.

Existing Design Characteristics of US 89

The existing alignment was originally constructed in several segments in the 1920's and 1940's. Given the age of the facility, a substantial portion of the existing US 89 roadway

exhibits curves, grades, and roadway widths that are not in compliance with current criteria. Some of the design issues are presented below.

Horizontal and Vertical Curvature.

Roadway design criteria are established for both horizontal (side to side) and vertical (hill crests and sags) curvature. For balance in highway design, all geometric elements should be determined to provide safe, continuous operation at a speed likely under the general conditions for that highway. Proper design of horizontal and vertical curves should result in a design that is safe, comfortable in operation, pleasing in appearance, and adequate for drainage. To that end, MDT has established design criteria based on the relationship between design speed and curvature to optimize safety. To meet the design criteria for this type of facility, the proposed horizontal and vertical alignments could generally follow the existing alignment from Fairfield to Bynum. Doing so would require curve flattening, superelevation correction, sideslope reconstruction, and likely some right-of-way acquisition. Within the section from Bynum to Dupuyer, it may be difficult to meet the design criteria without substantial horizontal and vertical alignment changes.



Photo 1-2: Representative substandard horizontal curve north of Choteau.



Photo 1-3: Representative substandard vertical curve and poor sight distance north of Choteau.

Stopping Sight Distance. According to AASHTO, the ability to see ahead is of utmost importance in the safe and efficient operation of a vehicle on a highway. For safety on highways, the designer must provide sight distance of sufficient length that drivers can control the operation of their vehicles to avoid striking an unexpected object on the roadway.

Maximum and Minimum Grade. Maximum grade criteria are based upon the type of terrain which the roadway traverses. Because the objective is to encourage uniform vehicle operation, it is necessary to provide proper grades. Passenger cars can readily negotiate grades as high as four to five percent without appreciable loss in speed, and the desire for this corridor is to provide grades between three and four percent.

Roadway Width. Table 1.1 provides measurements of the existing US 89 roadway widths within the Study Corridor, which are less than the current minimum criteria established by MDT. The Route Segment Plan identifies a future paved width for US 89 of 9.6 m (32± ft) from Fairfield to just north of Choteau, and narrows to 8.4 m (28± ft) from Choteau to the

end of the route. Based on MDT's policy to provide a sufficient finished top width to accommodate one overlay project within the 20-year design life of the project, the finished top width for this project will add approximately 0.8 m (2.6± ft.) to the width ultimately recommended through this study. In other words, a 9.6 m (32 ft) build alternative would actually be paved to 10.4 m (34.6 ft) so that it could accommodate a future overlay and still maintain the overall desired width of 9.6 m (32 ft).



Photo 1-4: View of narrow roadway and lack of shoulders.

Table 1.1
Existing Paved Width

Segment	RP (MP)	Width
Fairfield to Choteau	28.32 to 40.77	7.6 to 7.9 m (25± to 26± ft)
Choteau to Dupuyer	41.87 to 74.84	7.3 m (24± ft)

Bridge Structures. There are a number of bridge structures along this route that are either structurally deficient (meaning they have been restricted to light vehicles, require immediate rehabilitation to remain open, or are closed) or functionally obsolete (meaning they have deck geometry, load carrying capacity, clearance or approach roadway alignments that no longer meet the criteria for the system of which the bridge is a part) and will require rehabilitation or replacement.

There are 11 bridge structures within the study area, ranging from approximately 4.0 m (13± ft) to approximately 87.2 m (286± ft) in length.

Table 1.2 provides a summary of the *Structural Inventory and Appraisal* used to determine a structure's Sufficiency Rating (SR). The SR is used to determine a structure's adequacy both with regard to its load-carrying capabilities and its ability to accommodate the volume of traffic on the road which it serves. The SR was developed by FHWA as one of the parameters used in regulating Federal



Photo 1-5: View of the Teton River bridge south of Choteau.

funding for the Highway Bridge Replacement and Rehabilitation Program. It provides a basis to establish eligibility and priority for replacing or rehabilitating bridges. In general, the lower the rating (on a scale of 0 to 100) the higher the priority.

Table 1.2
Bridge Inventory and Rating

Feature Crossed	Type structure	RP	Length	Year Built	SR
Stockpass	1 span timber	34.46	4.0 m (13 ft)	1940	52.2
Stockpass	1 span timber	36.82	4.0 m (13 ft)	1940	52.2
Stockpass	1 span timber	38.61	4.0 m (13 ft)	1940	52.2
Teton River	Steel thru. Truss	39.42	69.2 m (227 ft)	1939	50.6
Foster Creek	1 span timber	53.43	14.0 m (46 ft)	1940	69.0
Muddy Creek	5 span timber	55.54	87.2 m (286 ft)	1929	45.9
Drainage	3 span timber	57.62	17.4 m (57 ft)	1929	59.2
Drainage	2 span timber	59.06	12.2 m (40 ft)	1929	59.2
Jones Coulee	3 span timber	59.65	17.7 m (58 ft)	1929	59.2
Bynum Canal	2 span timber	60.11	11.9 m (39 ft)	1929	59.2
Dry Fork – Marias	3 span timber	70.59	17.7 m (58 ft)	1929	37.5
Dry Fork – Marias	3 span timber	70.81	23.2 m (76 ft)	1949	67.3
Matchett Coulee	5 span timber	73.34	29.3 m (96 ft)	1929	45.0

Source: MDT On-System Bridges, Primary System (March 8, 2001)

Based on these ratings, the Muddy Creek, Dry Fork-Marias, and Matchett Coulee bridge structures have been programmed for replacement. To maintain flexibility in the identification of potential realignment alternatives, reconstruction of these, and all other bridges within the study area, have been postponed until the completion of the Fairfield to Dupuyer - Corridor Study and the identification of any shifts in the current alignment.

Existing Safety Considerations

The data presented in Table 1.3 represents reported accidents for this segment of US 89 (RP 28.322 to 75.0) from January 1, 1994 to December 31, 1998.

Table 1.3
Accident Data (1994 to 1998)

Data	Statewide Average	US 89
Total Accidents	- na -	157
Accident Rate	1.33	2.10
Accident Rate (trucks)	1.01	1.23
Severity Rate	3.38	4.37

Source: MDT, 1999

As demonstrated by the data in Table 1.3, both the accident rate and the severity rate on US 89 are higher than the statewide average for similar facilities. The accident rate is calculated based on accidents per million vehicle miles, and the severity rate is calculated on a weighted score depending on whether the accident involved a fatality, bodily injury, or property damage. Table 1.4 provides a summary of the most notable variations in the accident types when compared to the statewide average. The high rate of dry and clear condition accidents suggests geometric deficiencies.

Table 1.4
Notable Variations from Statewide Average

Type of Accident	Statewide Average	US 89
On-roadway accidents	51 %	72 %
Dry conditions	67 %	80 %
Property damage	59 %	75 %
Clear conditions	46 %	64 %

Source: MDT, 1999

About 43 percent of the recorded accidents involved a wild animal, with most occurring between RP (MP) 38 and RP 40 south of Choteau, and again between Choteau and Dupuyer.

A number of fatal accidents have been recorded in the corridor, but all occurred prior to January 1994.

When these safety performance indicators fall below desired levels, or exceed the statewide average for similar facilities, it is generally evidence that safety improvements should be considered. While no independent safety improvement projects have been identified to address accident cluster areas, overall improvements to the geometric elements (sharp curves or steep grades) and cross section (lane and shoulder width) are known to substantially improve safety performance.

Current and Projected Level of Service

Traffic conditions on a facility such as US 89 are commonly defined using the Level of Service (LOS) concept. The *Highway Capacity Manual* (HCM) defines LOS for two-lane roadways based on average travel speed, percent time delay, and capacity utilization to provide a qualitative assessment of the driver's experience. Six LOS categories ranging from A to F are used to describe traffic operations. LOS A represents the best conditions, and LOS F represents the worst. MDT uses LOS B as the desirable design criteria for rural highways such as US 89 in the Fairfield to Dupuyer corridor.

Table 1.5 presents existing (1999) and projected design year (2023) traffic data provided by MDT. Based on the existing roadway and traffic conditions in the corridor (approximately 200 vehicles per hour during the peak period), US 89 currently operates at LOS B both south and north of Choteau. As shown in Table 1.6, the LOS under a No-Build condition by the year 2023 will be LOS B south of Choteau, and LOS C north of Choteau.

Table 1.5
Existing and Projected Traffic Volumes on US 89

	Fairfield to Choteau	In Choteau	Choteau to Dupuyer
1999 Average Daily Traffic (ADT) =	1,150	2,980	750
2003 ADT =	1,230	3,100	780
2023 (design year) ADT =	1,590	3,780	950
Design Hour Vehicles =	210	450	200
Trucks =	9.2 %	2.5 %	3.8 %
Growth Rate (annually) =	1.3 %	1.0 %	1.0 %

Source: MDT, 1999.

Table 1.6
Existing and 2023 “No-Build” Level of Service (LOS)

Segment	1998		2023 No-Build	
	ADT	LOS	ADT	LOS
Fairfield to Choteau	1,150	B	1,590	B
Choteau to Dupuyer	750	B	950	C

Source: MDT, BRW, 1999.

When considering overall roadway use, it is important to note the high percentage of truck traffic (9.2 %) in the Fairfield to Choteau portion of the corridor. The narrow roadway width through this portion is not desirable with this level of truck usage. Even less favorable conditions, including narrow roadway width, steep grades, and sharp curves, may contribute to the substantial difference in truck usage (drops to 3.8 % north of Choteau) in the northern portion of the corridor. Current patterns indicate an ultimate destination of Conrad, Shelby, or points in Canada for commercial truck traffic, however, it is possible that a small percentage of this truck traffic would continue north on US 89 rather than divert to the Interstate if the route were improved.

Recreational Use

US 89 is regarded as one of the most scenic routes along the Rocky Mountain Front by many residents in this part of the state. Coupled with the fact that it provides access to/from both Yellowstone and Glacier National Parks, US 89 provides access to regional attractions such as Freezeout Lake, Teton Pass ski area, Bynum Reservoir, and some of the region’s most renowned archeological sites. Thus, this route serves as a recreational corridor for local, regional, national, and international tourists for a variety of destinations and in every season.

Residents and business owners throughout the corridor have noted the frequent usage of the highway by cyclists, and have expressed their desire to provide a safer and more attractive facility for those travelers. US 89 has been improved and widened on the north end of Fairfield, just south of the project terminus. Rumble strip treatments in the shoulder areas were included in this widening project. Rumble strips have been shown to be very effective at reducing single vehicle “run off the road” accidents in rural areas. However, if bicycle traffic is to be accommodated in the same shoulder area, care should be taken in the placement of the rumble strips and the width of the shoulder. The *AASHTO Guide for the*

Development of Bicycle Facilities (1999 edition, p.17) recommends that “a minimum clear path of 0.3 meters/m (1 foot/ft.) from the rumble strip to the traveled way [and] 1.2 m (4 ft.) from the rumble strip to the outside edge of the paved shoulder” be provided. This leads to a recommended minimum shoulder width of 1.8 m (6 ft.) if there are 0.3 m (1 ft.) rumble strips. The purpose of this is to provide a safer riding area for bicyclists which is wide enough to encourage them to use the shoulder without making them ride on the rumble strips.

As a part of this study, opportunities for scenic pull-outs along the route have also been assessed. Provision of pull-outs will provide enhanced recreational opportunities as well as improved safety by reducing the number of recreational vehicles stopping at inappropriate locations.

2.0 ALTERNATIVES ANALYSIS

This Corridor Study was initiated to assess the feasibility of new alignments and the overall need for future roadway improvements within the US 89 corridor between Fairfield and Dupuyer. This process has provided a full and fair evaluation of all reasonable alternatives as required under NEPA and MEPA guidance and regulations.

Through an active public involvement program, input has been received from agencies, elected officials, and local residents within the US 89 study corridor to develop, evaluate, and refine the alternatives presented in this chapter. General concerns raised through the public and agency involvement process included shoulder widths to accommodate bicyclists, preservation and/or enhancement of the aesthetic character of the corridor, and improving the driving conditions in the northern portion of the corridor.

A set of evaluation criteria was established to help guide the refinement of the alternatives developed under this study. To be considered for further evaluation, all alternatives had to affirmatively answer the following questions:

- Does it meet MDT standards?
- Does it meet AASHTO guidelines (unless prescribed by MDT standards)?
- Are the improvements cost effective?
- Does it adequately consider impacts to the built and natural environments?
- Does it provide for bicycle and pedestrian improvements?
- Does it adequately consider the scenic value?
- Does it encourage tourist travel in the corridor?

Several alignments, typical section widths, and other design features were evaluated during this process. The results of the initial evaluation and how the alternatives relate to the established criteria are presented in this chapter.

2.1 Typical Section Width

The existing typical section width of US 89 within the study corridor does not meet current MDT design standards for this type facility. The route provides only the minimum driving lane width ($3.6 \pm \text{m}$ [$12.0 \pm \text{ft.}$]), and narrow to non-existent shoulders. In addition to the No-Build alternative, three typical section widths were evaluated for this proposed reconstruction project.



Photo 2-1: View of current roadway width with no shoulders.

The Route Segment Plan identifies a future width for US 89 of 9.6 m (32.0± ft) from Fairfield to just north of Choteau, and narrows to 8.4 m (28.0± ft) from Choteau to the end of the route. These two typical section widths are illustrated in Figures 2-1 and 2-2, below.

Figure 2-1
9.6 m (32 ft) Typical Section
MDT Route Segment Plan – Fairfield to Choteau

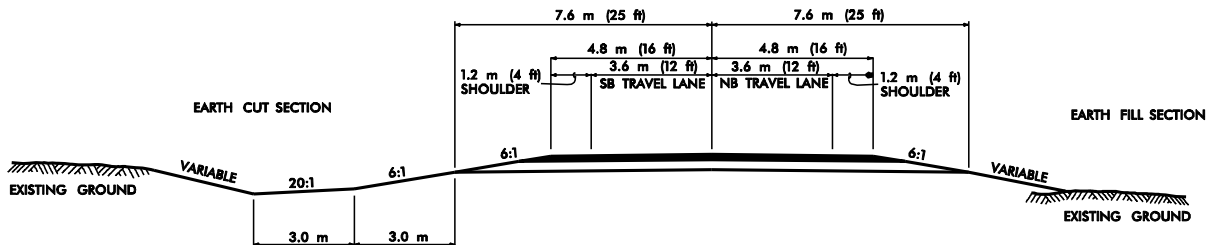
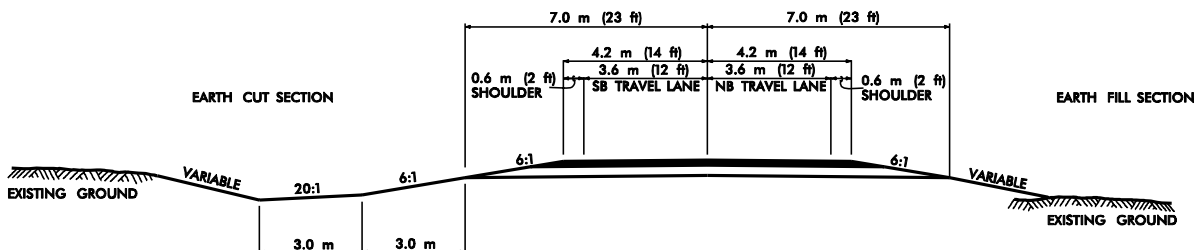


Figure 2-2
8.4 m (28 ft) Typical Section
MDT Route Segment Plan – Choteau to Dupuyer



Based on input from the local communities within the corridor, a wider typical section width to encourage bicycle and pedestrian travel has also been proposed for evaluation.

The U.S. Department of Transportation (US DoT) has issued a design guidance report entitled *Accommodating Bicycle and Pedestrian Travel: A Recommended Approach*, which offers a policy statement on integrating bicycling and walking into transportation infrastructures in response to demands from user groups. The design guidance/policy statement was drafted in response to Section 1202 (b) of the Transportation Equity Act for the 21st Century (TEA-21) with the input and assistance of public agencies, professional associations and advocacy groups. TEA-21 states that “Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation projects, except where bicycle and pedestrian use are not permitted.” (Section 1202).

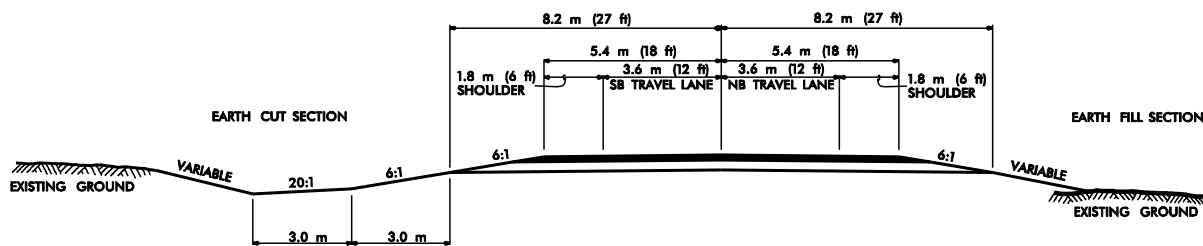
To address bicycle and pedestrian concerns in rural areas, the policy statement says:

“In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day. Paved shoulders have safety and operational advantages for all road users in addition to providing a place for bicyclists and pedestrians to operate. Rumble strips are not recommended where shoulders are used by bicyclists unless there is a minimum clear path of four feet in which a bicycle may safely operate.”

As noted previously in the Purpose and Need chapter, rumble strips have been shown to be very effective at reducing single vehicle “run off the road” accidents in rural areas. However, since bicycle traffic is intended to be encouraged in this corridor, an alternative that provides the recommended minimum clear path of 0.3 meters/m (1 foot/ft.) from the rumble strip to the traveled way [and] 1.2 m (4 ft.) from the rumble strip to the outside edge of the paved shoulder has been developed. This leads to a shoulder width of 1.8 m (6 ft.) including the 0.3 m (1 ft.) rumble strips.

The US DoT encourages states, local governments, professional associations, other government agencies and community organizations to adopt the TEA-21 policy statement as an indication of their commitment to accommodating bicyclists and pedestrians as an integral element of the transportation system. Given the nature of the corridor and the desire to encourage bicycle and pedestrian travel in this corridor, a 10.8 m (36.0± ft.) typical section width has been assessed in addition to the alternatives proposed in the Route Segment Plan. This typical section is illustrated in Figure 2-3, below.

Figure 2-3
10.8 m (36 ft) Typical Section
Shoulder Widths to Encourage Bicycle Use



Based on MDT policy to provide a sufficient finished top width to accommodate future overlay projects, the finished top width for this project will add approximately 0.8 m (2.6± ft.) to whichever typical section alternative is selected.

2.2 Alignment Alternatives

Throughout much of the corridor, there are two alternatives with regard to the alignment: the No-Build Alternative, which would provide routine maintenance to the existing facility, and the Build Alternative, which would reconstruct the roadway generally along the existing alignment, but offset approximately 15 m (50 ft) east of the existing centerline. An offset alignment is preferable for several reasons. Construction of a new alignment adjacent to the existing allows for the new roadway to be constructed while the existing roadway is still completely open to traffic. This reduces potential hazards to travelers in the corridor, minimizes any increased travel time costs due to construction delays, and minimizes construction impacts to local residents. An offset alignment also reduces the number of individual parcels that will be required for new right-of-way by acquiring new right-of-way only on one side of the new roadway. The new construction limits (including cuts through hills and fill slopes in low lying areas) will incorporate the majority of the existing roadway embankment and paved surface. Any portion of the existing roadway or embankment that is not fully incorporated into the new roadbed or side slopes will be re-graded and seeded with desirable vegetation. An offset alignment can also result in a savings in construction costs associated with earthwork and traffic control. A shift to the east was preferred through the middle third of the corridor due to the lack of development and/or agricultural activity in the abandoned railroad right-of-way located parallel and immediately adjacent to US 89.

As illustrated in Figure 2-4, additional alignment alternatives are being evaluated in six general locations. The alignment alternatives are outlined in the following discussion and organized in segments, by Reference Post (RP).

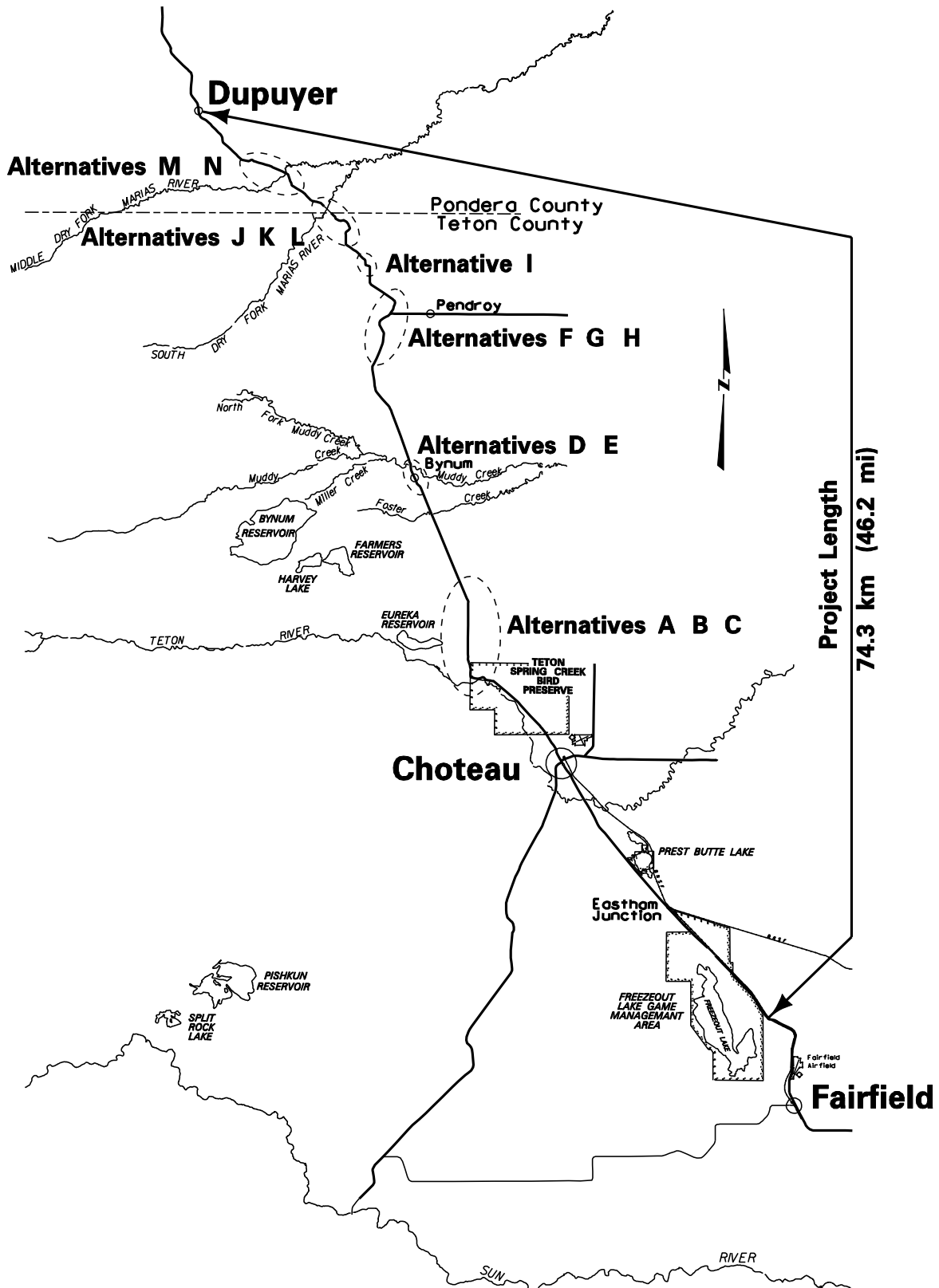
RP 28.9± (southern terminus) to RP 40.5± (south end of Choteau)

There is one Build Alternative in this portion of the corridor. US 89 would be reconstructed from the southern project terminus near the Montana Fish, Wildlife & Parks Freezout Lake management office to Eastham Junction. This portion of the corridor would be reconstructed as close to the existing centerline as possible to avoid any impacts to the Freezout Lake Wildlife Management Area (WMA) on the west, and any substantive encroachment of the Burlington Northern and Santa Fe (BNSF) right-of-way immediately to the east. A design exception to allow for a steeper than standard side slope may be required to the west, however, BNSF has agreed to allow minor encroachments from fill slopes on the east. North of Freezout Lake (at approximately RP 34), the BNSF line diverges east, allowing for the proposed alignment to be offset east of the existing by approximately 15 m (50 ft) for ease of construction. The proposed alignment returns to the existing centerline south of Choteau to avoid any impacts through town.

In Choteau

In addition to the No-Build, an alternative to mill and overlay the existing alignment through Choteau is proposed. Two notable exceptions in this portion include the straightening of the alignment north of town near the Old Trail Museum, and continuing the sidewalks on the north end of town up to the Stage Stop Inn. These are elements are discussed in more detail in sections that follow.

Figure 2-4
Alignment Alternative Locations



RP 42.0± (north end of Choteau) to RP 45.8±

The proposed alignment is on the existing centerline as it travels north out of Choteau. It is proposed to deviate from the existing at approximately RP 43 (near the intersection with the County Road on the east) to provide an offset alignment generally 15 m (50 ft) east of the existing alignment through the remainder of this portion of the corridor.

RP 45.8± to RP 50.0± (south of the Eldorado Ditch)

In addition to the No-Build, there are three alignment alternatives under consideration in this portion of the corridor. Figure 2-5 illustrates each of these three alignment alternatives.

Alignment Alternative A generally follows the existing alignment, providing minimal corrections to the existing roadway to bring it up to current design standards. The alignment was designed to avoid impacts to residences in the area and minimize wetland impacts associated with Spring Creek. By RP 48±, the alignment is on an offset by approximately 15 m (50 ft) to the west of existing (primarily to avoid impacts to the feedlot further north and on the east). At the curve south of the Miller Colony, at approximately RP 49.8, the alignment shifts to the east to improve this curve, and again utilize the abandoned railroad right-of-way.

Alignment Alternative B leaves the existing alignment at approximately RP 45.8 to follow northwesterly along the abandoned Great Northern Railroad grade across Spring Creek. The railroad grade makes an S-curve up this grade. The proposed alignment follows the railroad grade until it turns to the north and east. At this point, Alignment B continues along a northwesterly course to connect with the proposed new offset alignment as it runs north at approximately RP 47.4±. From this point north, it is identical to Alignment Alternative A.

Alignment Alternative C leaves the existing alignment at approximately RP 45.8 (running parallel to the County Road) and takes a northerly route across Spring Creek and up the bank on the north side of the Teton River floodplain. The alignment curves northwesterly to connect with the northerly portion of the “S curve” of the abandoned Great Northern Railroad grade, running behind (east of) the feedlot. It ties into the proposed offset tangent alignment just north of the Eldorado Ditch, at approximately RP 49.8± and continues north on an offset alignment approximately 15 m (50 ft) east of the existing centerline.

RP 50.0± to RP 54.8± (north of Foster Creek)

The Build Alternative for this portion of the corridor involves reconstructing the route on an offset alignment, approximately 15 m (50 ft) east of the existing centerline.

In Bynum

Two alignment alternatives have been considered in this portion of the corridor between RP 54.8 and RP 55.4 (south end of Bynum to immediately north of Muddy Creek). Figure 2-6 illustrates these two alignment alternatives.

Figure 2-5
Alignment Alternatives A, B, and C

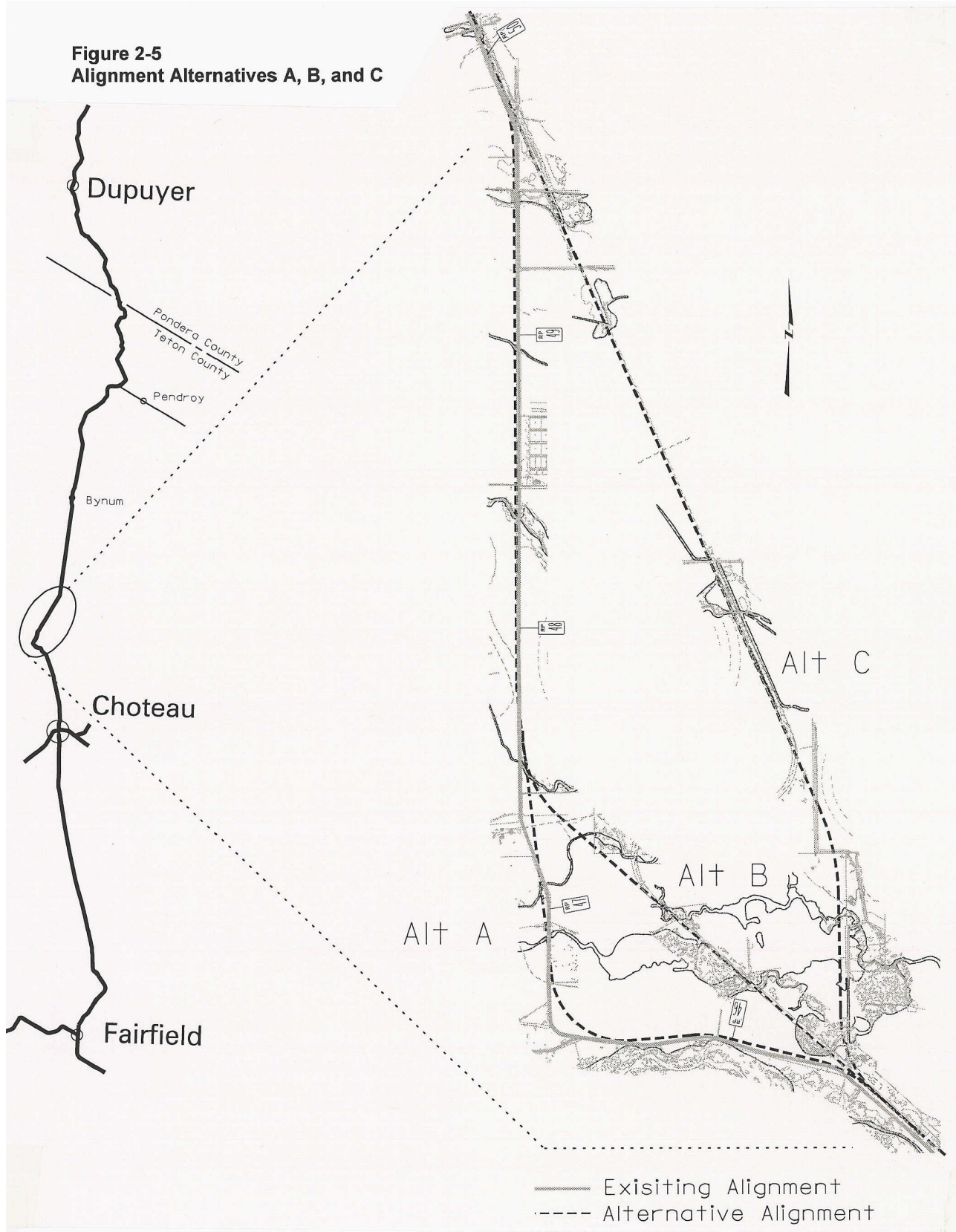
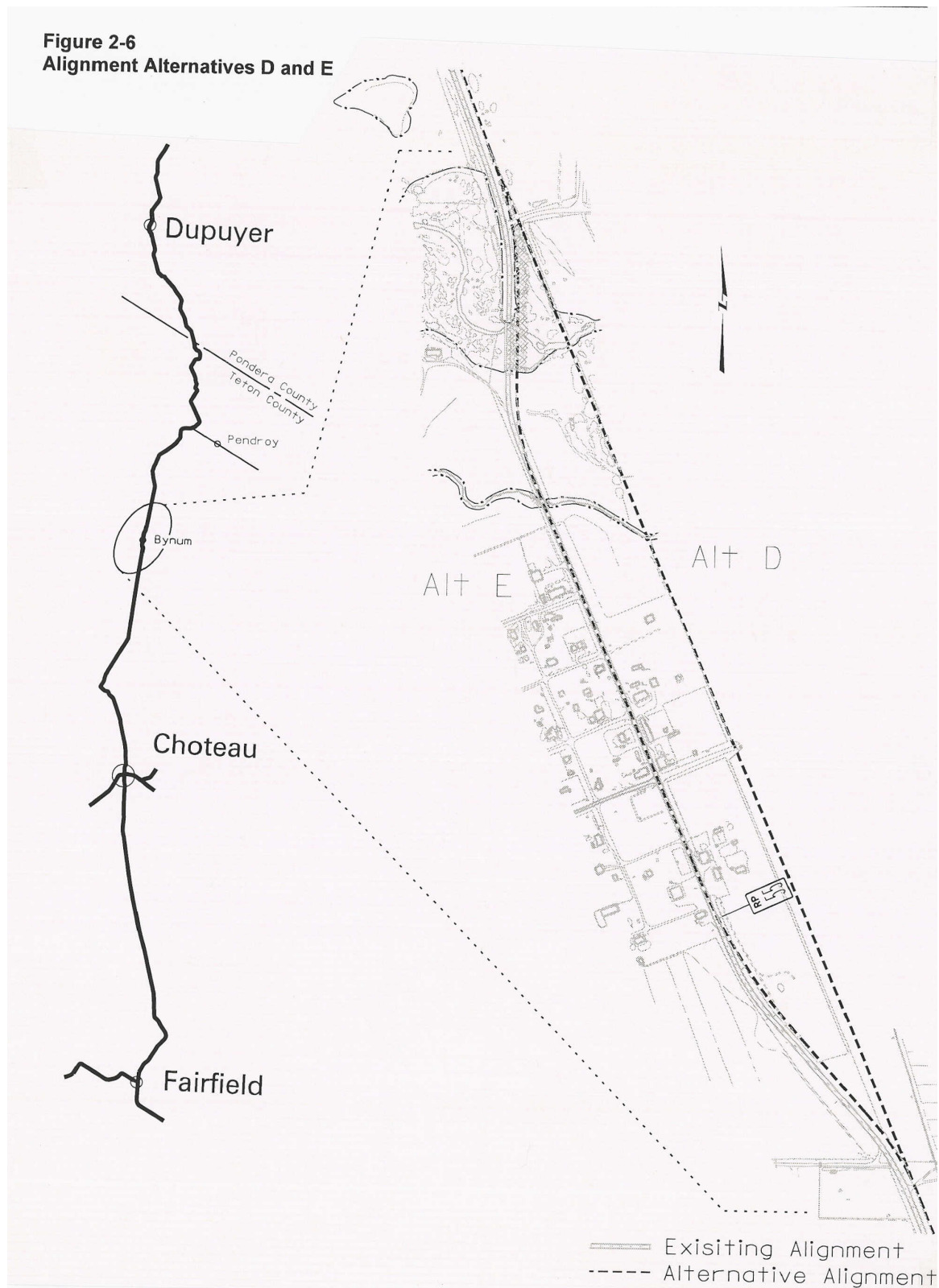


Figure 2-6
Alignment Alternatives D and E



Alignment Alternative D continues the offset alignment to the east, and shifts slightly further east to utilize the abandoned Great Northern Railroad grade east of the town. This would eliminate the curves and the reduced speed limit at Bynum, essentially bypassing the town. The alternative rejoins an easterly offset alignment after crossing Muddy Creek to the north.

Alignment Alternative E generally follows the existing alignment through the Town of Bynum. It provides only minimal modification of the curve at the south end of town, reconstructs the roadway through town, and provides a new bridge crossing of Muddy Creek east of the existing alignment. This crossing of the Creek is at a much better skew than either the existing alignment or Alternative D. The alternative continues on an offset alignment east of the existing.

RP 55.4± (just north of Muddy Creek) to RP 60.0± (south of Bynum Canal)

The Build Alternative for this portion of the corridor involves reconstructing the route on an offset approximately 15 m (50 ft) east of the existing centerline.

RP 60.0± (south of Bynum Canal) to RP 64.5±

Three alignment alternatives were developed to eliminate sharp curves between Bynum Canal and a location approximately 1.5 km (1.0± mi) north of Farmers Coulee. Figure 2-7 illustrates these three alignment alternatives.

Alignment Alternative F involves approximately 7.2 km (4.5± mi) of new alignment and a substantial deviation from the existing alignment. It connects two tangent sections of the existing alignment from MP 60 to 64.5 as it runs north, climbing up and over a finger-like portion of the Porter Bench, eliminating the sharp curves at Farmers Coulee.

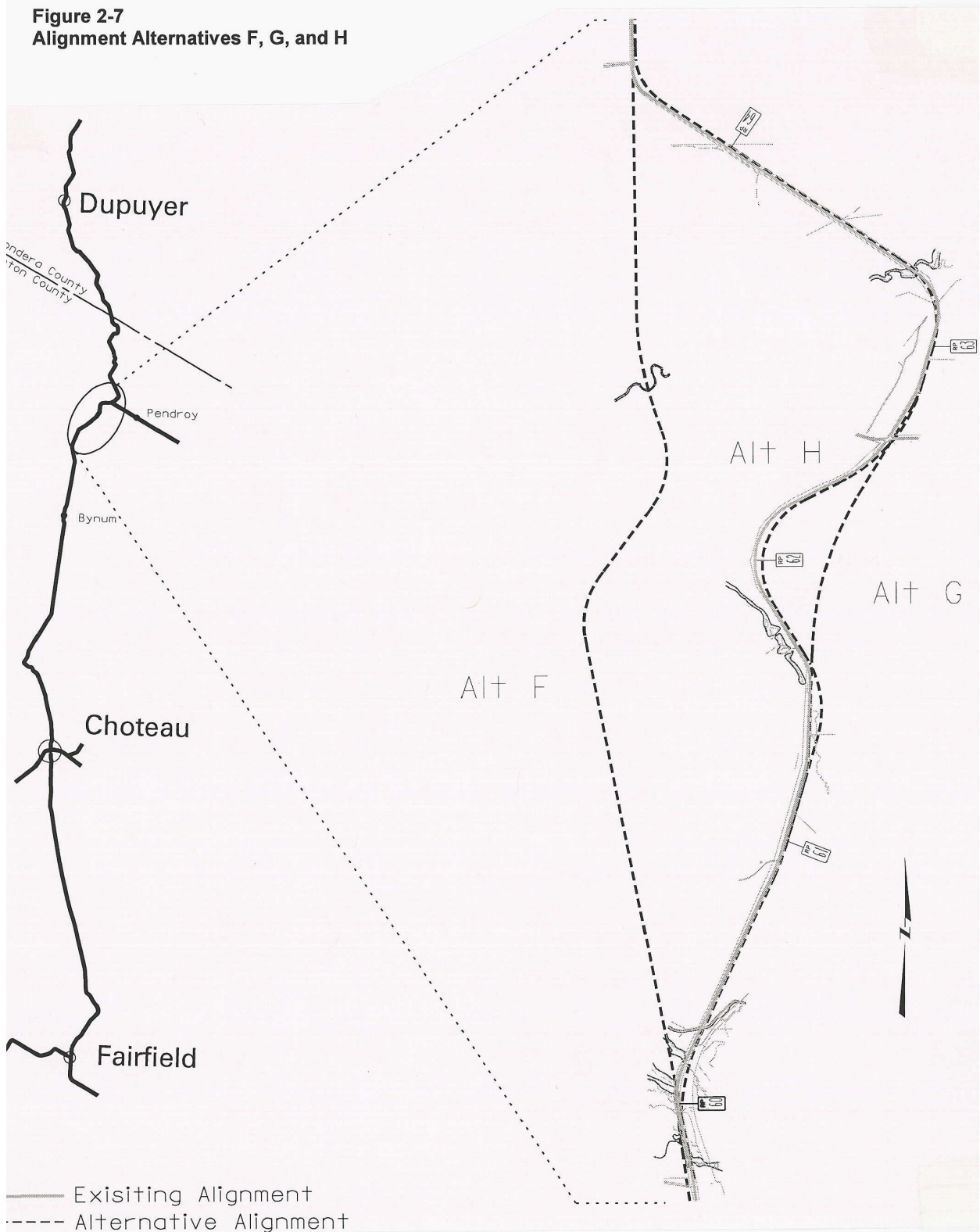
Alignment Alternative G was recommended by a local landowner as a means to correct the curve at the bottom of this draw. To provide the appropriate curve, the alignment would shift west of the radio tower and gradually turn back to the east. It provides a substantial horizontal curve correction but requires an extensive cut section through the bluff southwest of Pendroy Junction.

Alignment Alternative H generally follows the existing alignment but smooths the sharp curve south of Pendroy Junction by providing a design that meets the minimum standard curve. This alignment will also require a fairly large cut in the hillside east of the existing alignment.

RP 64.5± to RP 66.0±

In this portion of the corridor, the proposed alignment follows the existing with an offset approximately 15 m (50± ft) east of the existing until it reaches the curve above Spring Creek (Welenstein Coulee). The proposed alignment would connect the two tangent sections from MP 65 to MP 65.5. This is the most reasonable alignment to correct the curves immediately north of RP 65. It is the only alignment alternative identified in this portion of the corridor,

Figure 2-7
Alignment Alternatives F, G, and H



but because it is not simply an offset alignment, it is identified as **Alignment Alternative I**, and is illustrated in Figure 2-8.

RP 66.0± to RP 69.5±

There are three alignment alternatives under consideration in this portion of the corridor. Figure 2-9 illustrates each of the alternatives described below.

Alignment Alternative J is a long, cross-country alignment beginning at RP 66.1±, providing virtually a straight connection back to the existing alignment at approximately RP 69.1. This alignment requires substantial new right-of-way through cultivated fields and rangeland.

Alignment Alternative K forms a wide arcing route through the bottom lands in an attempt to connect tangent sections of the existing alignment. It provides approximately 2.3 km (1.4± mi) of new alignment from MP 66.8 to MP 68.2. It provides a gentle curve through the bottom lands, but could potentially avoid much of the cultivated land in this area.

Alignment Alternative L generally follows the existing alignment, while providing the minimum standard for vertical and horizontal curves in this section. This alternative begins at approximately RP 66.9 and ends at RP 68.8±, approximately 3.0 km (1.9±m) in length.

RP 69.5± to RP 73.0± (south of the North Fork)

Two alternatives are proposed in this portion of the corridor. Figure 2-10 illustrates the following two alternatives.

Alignment Alternative M is intended to eliminate the sharp curves in the Jensen Coulee and Middle Fork area. The alternative would provide a long arching route on a new alignment from RP 69.5± to RP 73.0± and would require new crossings at both drainages. This amounts to approximately 5.6 km (3.5± mi) of new alignment through cultivated fields.

Alignment Alternative N utilizes the existing alignment for the majority of this portion of the corridor, but four curves at RP 70.3±, 70.5±, 72.3±, and 72.8± would be brought up to standard.

RP 73± to RP 74.9± (south end of Dupuyer)

The build alternative for this portion of the corridor involves reconstructing the route, offset by approximately 15 m (50± ft) east of the existing centerline, and making minor corrections to several curves in this portion of the corridor. The proposed alignment rejoins the existing centerline approximately 200 m (660 ft) from the north end of the project at RP 74.9±, outside Dupuyer.

Figure 2-8
Alignment Alternative I

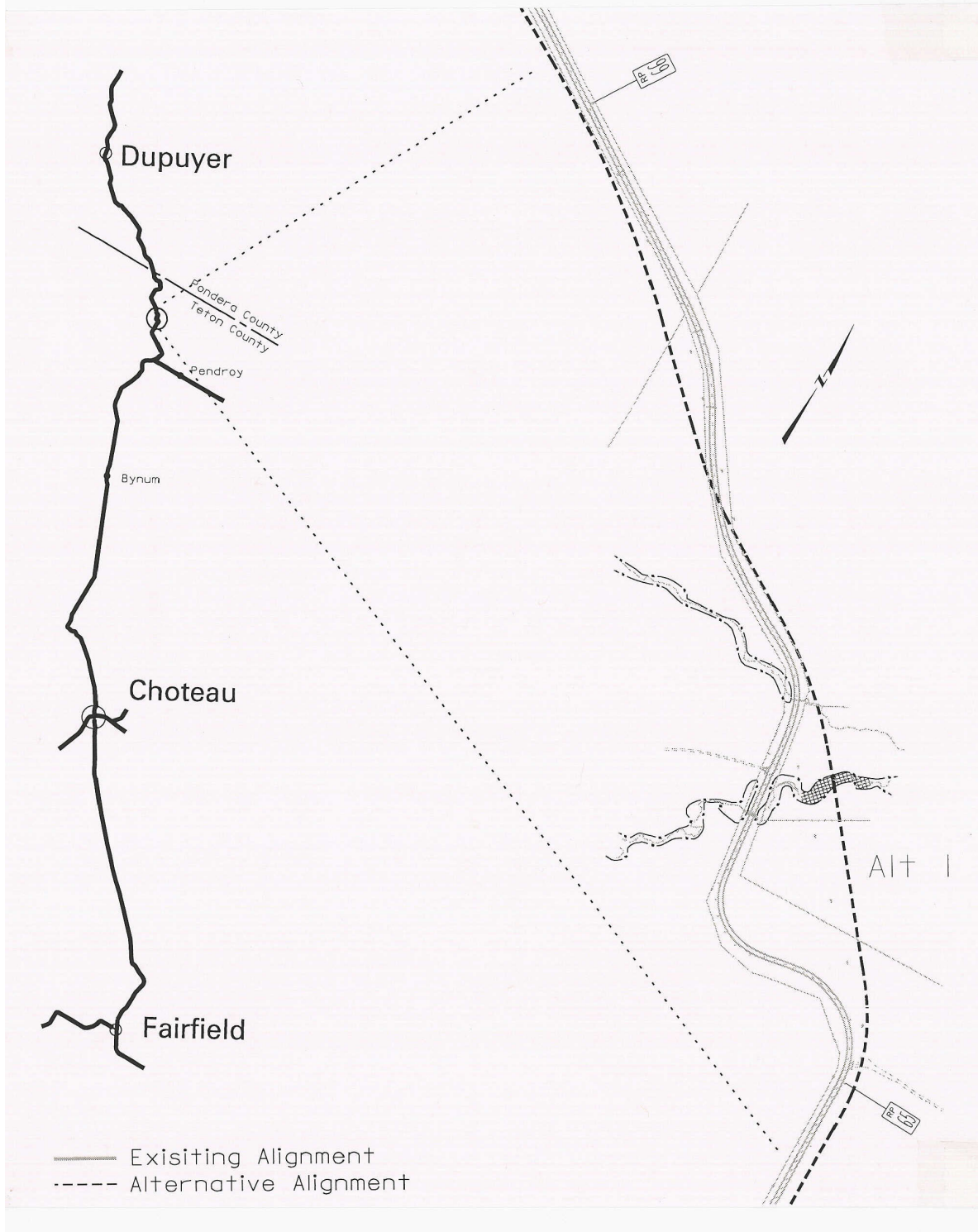


Figure 2-9
Alignment Alternatives J, K, and L

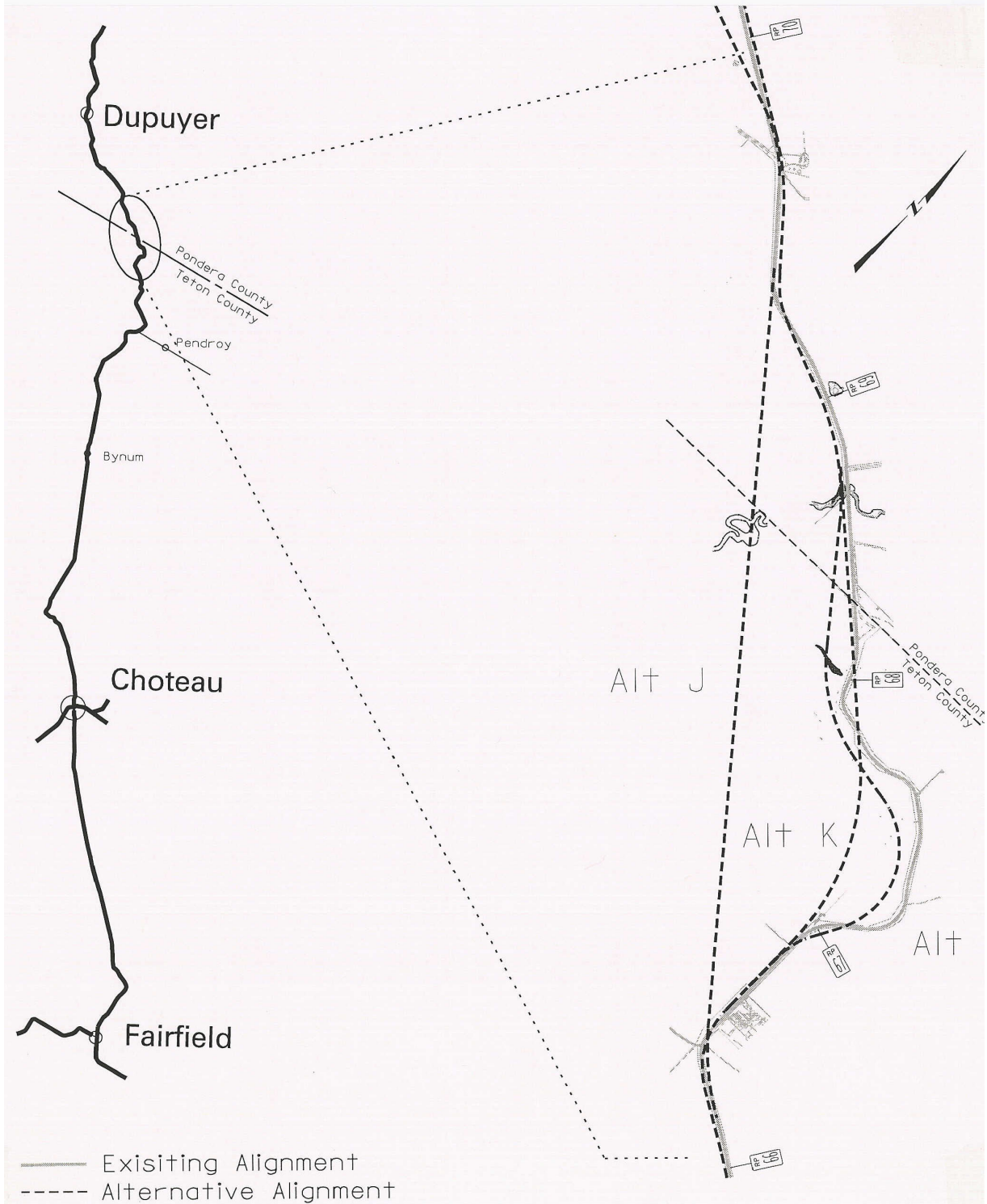
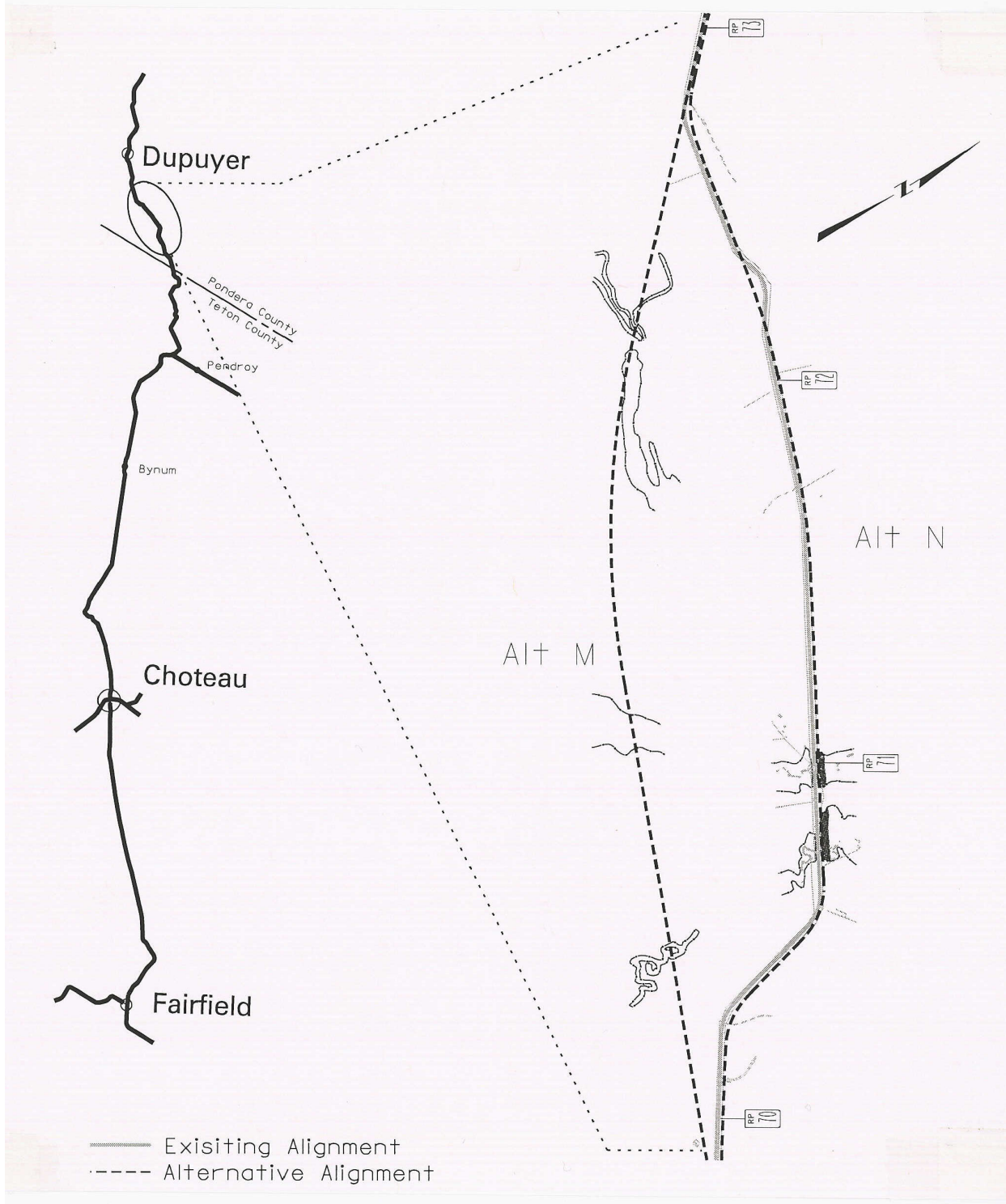


Figure 2-10
Alignment Alternatives M and N



2.3 Enhancement Opportunities

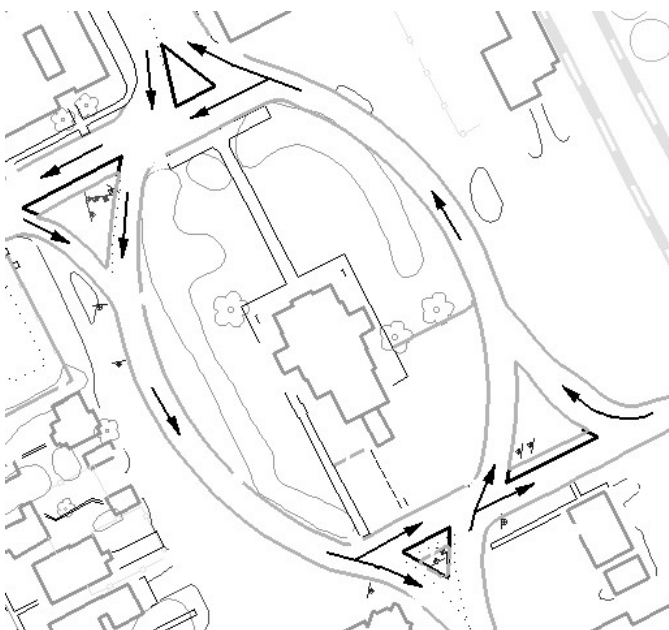
In addition to improvements in the typical section and alignment to address safety and efficiency concerns, there are other important elements to consider when evaluating traffic operations and driver experience. These elements include types of existing control treatments, parking and traffic interaction, consistency and usefulness in signing and striping, and aesthetic treatments in the corridor. There are several locations in the corridor where these types of elements contribute to the operations of the corridor. Specific items and features identified during the public involvement process are presented below.

Traffic Circle in Choteau. The Teton County Courthouse is located in the center of Choteau. US 89 was originally constructed around the courthouse, creating a civic feature. This split in the alignment around the courthouse has created a traffic circle. The traffic circle is located in the middle of a standard grid roadway system that presents some operational challenges, particularly at the north end. In general, a traffic circle operates as a one-way road in the counterclockwise direction. This way, all the traffic is flowing the same way and is easier to control. However, two-way traffic occurs at the north end of this traffic circle because of its



Photo 2-2: Southern view of Choteau traffic circle around the Teton County Courthouse.

Figure 2-11
Traffic Flow around Courthouse



intersection with the grid system. In addition, there is inadequate sight distance for traffic entering the circle from the west to see southbound vehicles. The presence of parking inside the traffic circle on both the north and south ends further serves to complicate the intersection. These elements serve to create a confusing and potentially dangerous intersection.

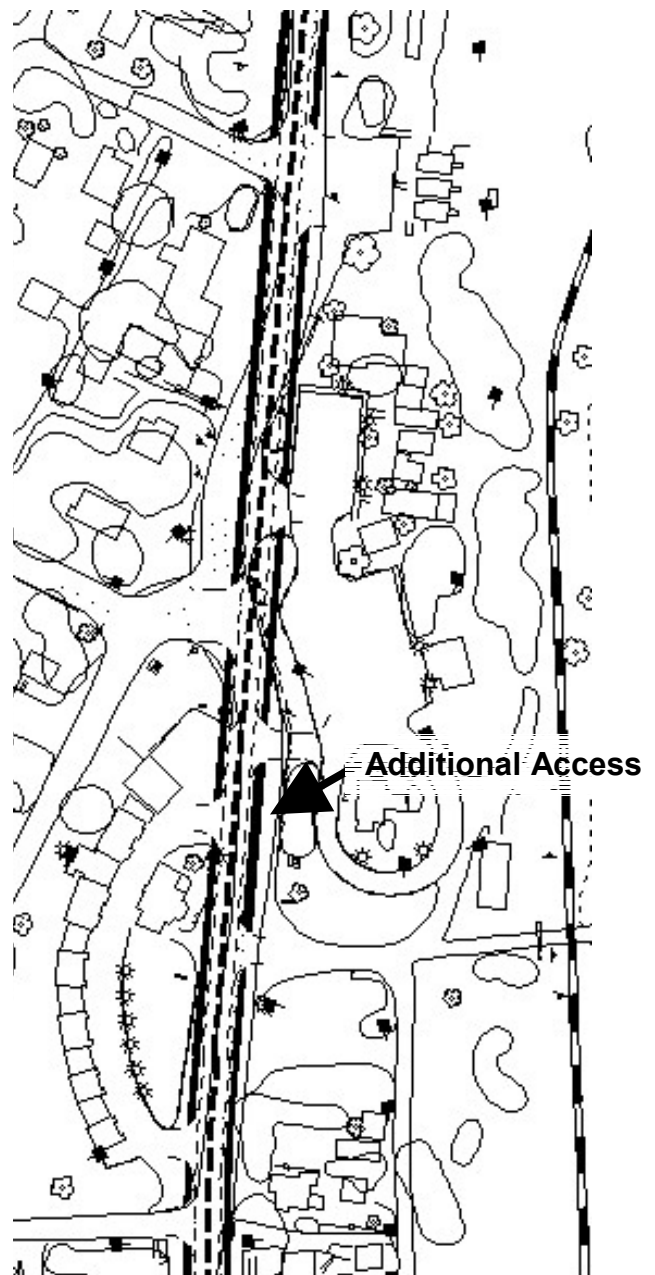
Figure 2-11 illustrates the improvements proposed under this project which would provide islands to help direct traffic, require one-way travel on the entire circle by eliminating the left turn (eastbound to northbound) onto Main Street from Hwy 287, and eliminate the parking area on the north side of the courthouse.

Traffic Signal at 1st and Main. A number of requests were made during public meetings for the installation of a traffic signal at the intersection of 1st and Main, in Choteau. The volumes on these intersecting routes are fairly balanced, and there is a high volume of pedestrian traffic in this area as well. MDT conducted a signal warrant study and found that a signal is not yet warranted, but because some of the warrants are met, installation of a four-way stop is appropriate at this time. MDT is proposing to replace the existing overhead flasher assembly with an upgraded four-way red assembly. Stop signs would also be placed on all four legs of the intersection.

Due to the width of US 89/Main Street and the presence of angled parking through Choteau, visibility of both the stop signs and pedestrians is a concern; thus, MDT investigated the potential to include ‘bulb outs’ on the corners which would extend the sidewalks out into the intersection. However, during the development of more detailed designs, it was determined that street drainage and truck turning movements could not be adequately accommodated with this feature. The design solution will require elimination of some diagonal parking at the corners to facilitate the truck turning movements and improve visibility of pedestrians and the stop control.

Curve correction north of Choteau. A “kink” was put in the road on the north end of Choteau in an effort to provide additional parking area at the Old Trail Museum complex. According to many local residents, this kink is a nuisance to through traffic and a potential hazard to vehicles attempting to back out of the restaurant located on the west side of the road. Observations reveal that vehicles rarely stay in their designated travel lane when driving through this curve. Elimination of the curve will improve the sight-line on the north end of town, and reduce the potential for conflicts with vehicles backing out of the restaurant. Modifications to the parking area entrance at the Old Trail Museum will be required. Figure 2-12 illustrates the proposed construction through this area.

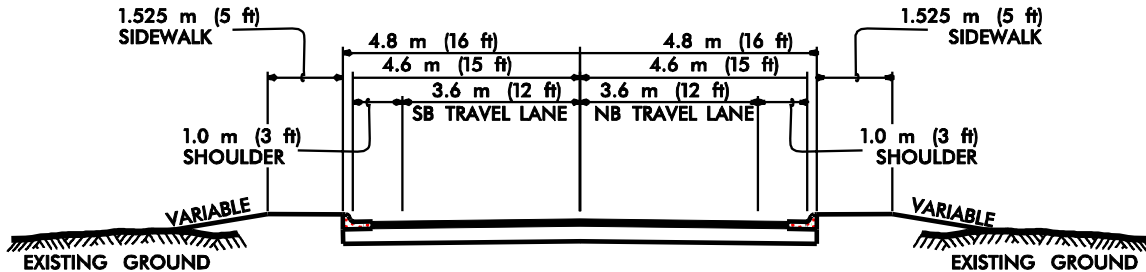
Figure 2-12
Curve Correction north of Choteau



Sidewalk Improvements in Choteau

Currently, the sidewalks heading north along US 89 in Choteau terminate in the vicinity of the Bella Vista. The Preferred Alternative includes plans to install curb/gutter, and to extend the sidewalks up to 10th Street NW on the west side, and up to the Stage Stop Inn on the east side of US 89. Figure 2-13 illustrates the proposed urban typical section for Choteau.

Figure 2-13
Urban Typical Section for Choteau

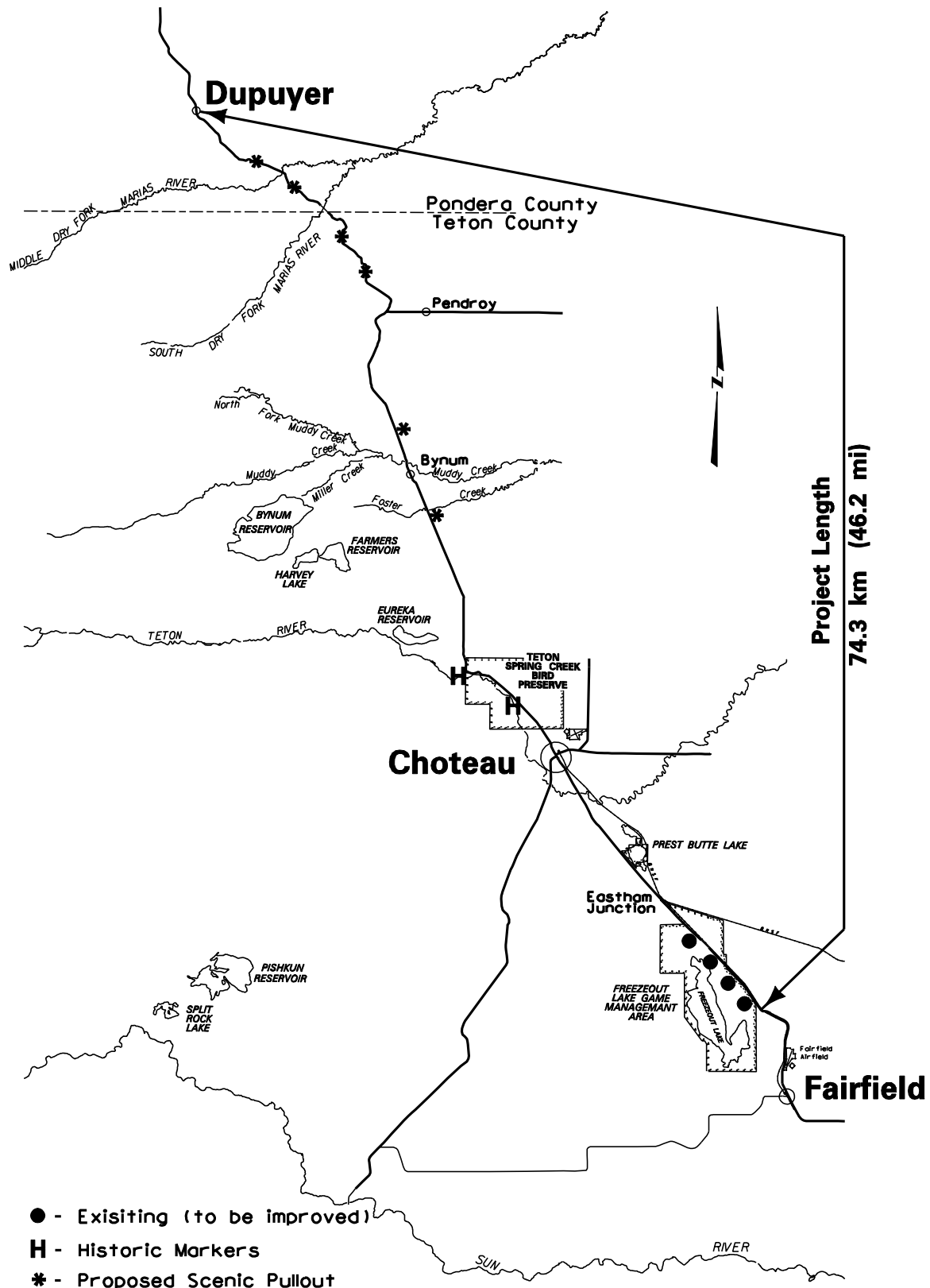


Pullout Areas. As the corridor is frequently used by recreational travelers destined for Freezout Lake or heading to and from Yellowstone and/or Glacier National Park, MDT has considered providing wildlife viewing areas and scenic pullouts along the route to provide safe opportunities for travelers to stop and enjoy the surrounding environment. Due to the right-of-way constraints through the Freezout Lake area, no pullouts are proposed; however, the proposed project does include provisions for enhancements of the existing parking areas in the Freezout Lake area. Improvements to these parking areas will provide safe stopping opportunities for recreational travelers and bird watchers. The two historical marker locations will be maintained, and new scenic pullouts are proposed in the northern portion of the corridor where views of the Rocky Mountain Front are most opportune. These pullouts are proposed at approximately RP 53 near the Savik Waterfowl Production Area, RP 57 north of Bynum near Jones Coulee, at RP 65 south of Spring Creek (Welenstein Coulee), at RP 67 near the radio tower, at RP 70 near County Road 322, and at RP 72 above Jensen Coulee. Figure 2-14 provides an illustration of the general location of these pullouts.



Photo 2-3: Existing historic marker pull-out area.

Figure 2-14
Location of Pullout Areas



Effective Signing. This applies mainly to the public information signs regarding the availability of rest areas and local specific services. Signs should be included in this project that clearly identify the parking areas, scenic pullouts, local attractions, historical and archeological sites, and regional attractions. These are intended to highlight the recreational nature of the corridor and encourage more tourism-related activity within the corridor.

Intersection Improvements. In the northern portion of the corridor, there are several locations where “blind” intersections occur. These are undesirable because vehicles cannot make an appropriate decision on whether it is safe to enter US 89. Modifications are proposed to the vertical curves (sags and crests in the roadway profile) that will improve the visibility of these intersections. Additional intersections are poorly aligned with US 89, making it difficult for approaching vehicles to see oncoming traffic on the highway. Realignment of these intersections to more desirable angles is also proposed. These intersections are located at: the County Road at approximately RP 29.8, Eastham Junction at RP 34.1±, Miller Lane at RP 39.1±, an approach road to the Miller Colony at RP 52.1±, Pendroy Junction at RP 62.7±, a residential access at RP 69.5±, and the County Road at RP 69.7±.

2.4 Preliminary Alternatives Screening Analysis

The following section provides a summary of the screening analysis conducted for the preliminary alternatives. This analysis was founded on the evaluation criteria established for this study during the public involvement process.

Typical Section Alternatives

While only the 10.8 m (36 ft) typical section provides the AASHTO-recommended width for bicycle traffic, all three typical section alternatives proposed for this corridor can feasibly satisfy the evaluation criteria established during the public involvement process. Thus, all three typical sections have been carried forward for detailed evaluation to allow for a comparison of quantifiable impacts.

Alignment Alternatives

Each one of the previously described alignment alternatives was screened through the evaluation criteria. Those alignment alternatives which fail to satisfy either the purpose and need, or the evaluation criteria, will be eliminated from further consideration. Table 2.1 summarizes the results of the screening evaluation.

Table 2.1
Screening Evaluation Summary

Alignment Alternative	Status	Rationale
No-Build	Retain	Does not meet purpose and need, or the evaluation criteria, but is being retained for comparison as the baseline condition.
A	Retain	Improves the roadway geometry through the Spring Creek area with minimal disturbance to the surrounding built and natural environment.
B	Retain	Improves the roadway geometry through the Spring Creek area with moderate disturbance to the surrounding built and natural environment. Has potential Section 4(f) impacts.
C	Retain	Improves the roadway geometry through the Spring Creek area with moderate disturbance to the surrounding built and natural environment. Has the greatest impacts to wetlands compared to A and B.
D	Eliminate	As essentially a bypass of Bynum, it is inconsistent with the intent to promote and enhance the recreational opportunities within the corridor. It was widely criticized during public input as having a potentially detrimental economic impact on Bynum.
E	Retain	Provides an improvement to the geometrics of the roadway and an improved crossing of Muddy Creek.
F	Eliminate	Provides a substantial improvement in the alignment but requires extensive right-of-way through ranchland. This alternative does not satisfy the criteria to minimize impacts, and would not be cost effective compared to G and H.
G	Retain	Provides a substantial improvement in the alignment, but may require extensive cut and fill. Depending on the cost, it may still satisfy the evaluation criteria.
H	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.
I	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.
J	Eliminate	Provides a substantial improvement in the alignment, but requires extensive right-of-way through ranchland that, according to local landowners, may be unsuitable for roadway construction. This alternative also fails to satisfy the evaluation criteria regarding minimization of impacts and cost effectiveness when compared to K and L.
K	Retain	Provides substantial improvement in the alignment, but much less right-of-way than Alignment J.
L	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.
M	Eliminate	Provides a substantial improvement in the alignment, but requires extensive right-of-way through cultivated fields and ranchland. This alternative fails to satisfy the evaluation criteria regarding minimization of impacts and cost effectiveness when compared to N.
N	Retain	Provides the necessary improvements to the roadway geometry and satisfies the evaluation criteria.

Source: BRW, Inc. (2002)

The alternatives retained have been forwarded for detailed evaluation and are discussed further in Chapter 4 of this document.

2.5 Identification of the Preferred Alternative

Based on public input and the screening analysis outlined above, a Preferred Alternative has been identified for detailed evaluation. Considering the desire to encourage bicycle travel within the corridor, the 10.8 m (36 ft) typical section is the preferred width; however, the 9.6

m (32 ft) section for the Fairfield to Choteau portion of the corridor, and the 8.4 m (28 ft) section for the Choteau to Dupuyer portion of the corridor, have been forwarded for comparative purposes in the event that impacts are too severe or costs are disproportionately higher for the wider typical section.

Out of the fourteen alignment alternatives introduced during the public involvement process, four have been eliminated due to the fact that other alternatives can feasibly accomplish the same goals with fewer impacts and less cost. While all of the remaining alignment alternatives can feasibly satisfy the purpose and need, and the evaluation criteria, a preferred corridor alignment was identified in the DEIS that would include the offset alignment described previously, plus Alignment Alternatives A, E, H, I, L, and N. This combination of alternatives provided the most reasonable geometric improvements necessary to bring US 89 up to current standards, while minimizing impacts to adjacent properties and resources.

Since circulation of the Draft EIS and taking comments received from the Public Hearing into consideration, the Proposed Action has been changed to include Alignment Alternative K instead of L in the Wellenstein Coulee. This decision was based on the expressed local desire from the Public Hearing to improve that curve as much as possible, and was affirmed by the willingness of the landowner to endure a larger impact. The remainder of the Preferred Alternative remains the same, including Alignment Alternatives A, E, H, I, and N.

2.6 Additional Alternatives Considered But Eliminated

Through discussions with public and agency participants during the evaluation process, several alternatives were proposed but eliminated because they did not satisfy the purpose and need for the project, or did not fit the evaluation criteria established through the public involvement process. These alternatives are discussed briefly in this section.

Freezout Lake By-Pass Alternative

An alignment that would have bypassed Freezout Lake on its west side was considered early in the process. The intent of the alternative was to minimize potential impacts to the resource area's wetlands and wildlife habitat. This alternative was eliminated due to comments received from the resource area managers as well as the public. Representatives from Montana Fish, Wildlife, & Parks (MFWP) indicated that the west side is not desirable for a new alignment for two main reasons: 1) the southwest side of the Waterfowl Management Area (MWA) is closed to hunting and is used by nesting birds. Not only would this be disruptive to these birds, but it would make access to the area more difficult for hunters and birdwatchers; and, 2) MFWP noted that the area is managed for use and is visited by hunters and birdwatchers all year long. Re-routing the highway could affect numerous public users due to the loss of direct access. This alternative has been eliminated from further consideration.

Choteau By-Pass

MDT does not have an engineering reason or a traffic reason to forward any by-pass alternatives at Choteau; however, a request was presented at a public meeting for a truck by-pass around Choteau. The only reason to forward this alternative would be if the geometric

improvements could not be designed that would provide safer passage for trucks through town. The proposed project can provide those improvements, making a truck by-pass unnecessary.

According to state law (M.C.A 60-2-211) a community cannot be bypassed without their consent. The Mayor of Choteau went on record at the May 3, 2000 public meeting with the following statement: "I think all the input that I've heard has been very vocal, and speaking for the people of Choteau, we would like 89 to continue to go through Choteau, and we would probably jump up and down and protest vigorously if they try to get away from our business district with the highway. So I want to go on record to eliminate the alternative to by-pass Choteau." Since that time, a resolution has been passed that would not allow a by-pass of the community. (Resolution No. 541, *Refusing to Give Consent to Highway Bypass or Relocation of Highway 89*, passed and approved by the City Council of the City of Choteau on May 16, 2000.)

Considered Elimination of Diagonal parking in Choteau

The main business district in Choteau lies just north of the courthouse traffic circle. US 89 serves as an interface between the traveling public and the business district in this area. Part of this interface is using US 89 for parking. This parking is "head-in," or "angled," where vehicles pull straight in to diagonal parking spaces instead of pulling into parallel parking spaces. This creates more parking per block in the district but also creates potential safety concerns. As cars back out of their parking space on US 89, they back directly into the moving traffic lane. Vehicles backing out have a difficult time detecting approaching traffic on US 89 due to other parked cars blocking their sight line. In addition, the northbound traffic on US 89 has inadequate sight distance around the curve formed by the traffic circle to avoid vehicles backing onto US 89 on the next block.



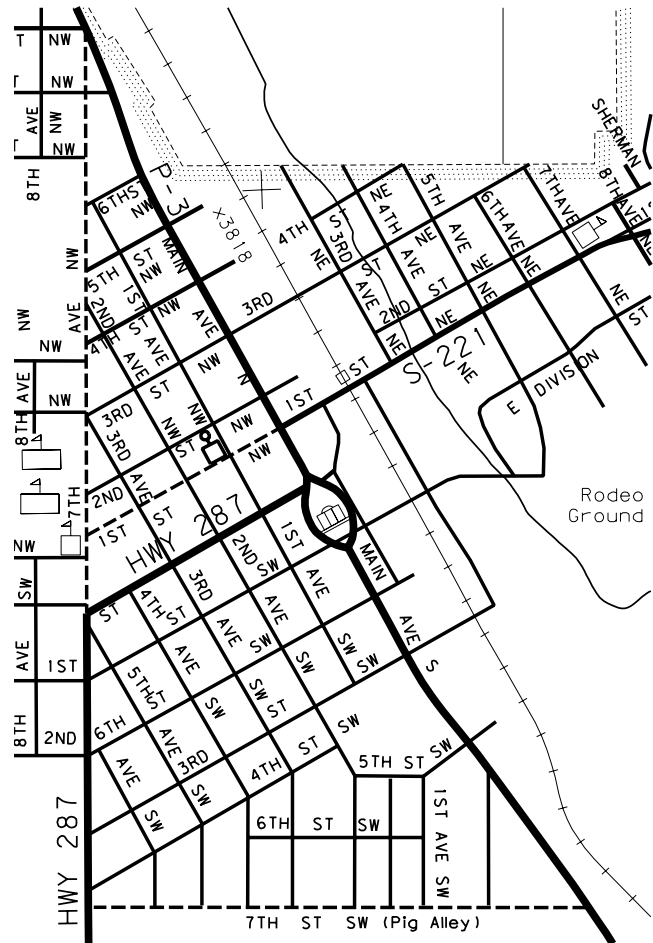
Photo 2-4: View of diagonal parking and sight-line from sidewalk in Choteau.

Residents in and around Choteau strongly opposed elimination of the angled parking. As there is no alarming accident history, and the speeds and traffic volumes are not at a level to create a particularly high hazard, the proposed project will not eliminate angled parking as a whole, but may modify the degree of angle and will likely eliminate a few spots at the high volume intersections to improve visibility of approaching vehicles and pedestrians.

Re-designation of Hwy 287 Route in Choteau

Alternatives were developed to alleviate the traffic/accident problem at the Division Street (Hwy 287) and Main (US 89) intersection in Choteau. Three alternatives were evaluated that would re-designate a City street as the new Hwy 287 route in Choteau. As illustrated by the dashed lines in Figure 2-15, one alternative would have been to keep Hwy 287 straight along 7th Ave NW, the second would go a block north of the existing route on 1st Street NW, and the third would go south onto 7th Street SW ("Pig Alley"). The Pig Alley alternative was identified as the preferred alternative and received support from the public and Teton County (letter dated May 20, 2000); however, the City Council of Choteau determined the route should stay as is, but should eliminate the left turn from Hwy 287 north onto US 89. Thus, there will be no re-designation of Hwy 287, but there will be turn movement restrictions at the Hwy 287/US 89 intersection, as described in the previous section.

Figure 2-15
Potential Hwy 287 Route(s)



Separated Bike Path

The concept of a separated bike path throughout the corridor was discussed in early scoping for this proposed project. The notion was that the abandoned rail line could be used, and that little additional right-of-way would be required for this amenity. However, the abandoned railroad right-of-way currently owned by the state and available for use is located through only a small portion of the corridor. This, combined with the concern from many locals that the additional costs, right-of-way requirements, and future maintenance obligations had the potential to delay overall improvements to the highway, led to a focus on providing the bike and pedestrian accommodations within the shoulder of the improved roadway typical section. Public input supported the notion that wider shoulders could more effectively serve the dual purpose of providing room for pedestrians and bicyclists, while also providing refuge for vehicles stopping for the scenic opportunities, vehicle breakdown, or slow-moving farm equipment. For these reasons, the separated path was eliminated from further consideration.

Truck Climbing Lanes

The need for climbing lanes was assessed in several areas in the northern portion of the corridor. These areas and the geometric conditions warranting their analysis are presented in Table 2.2.

Table 2.2
Potential Truck Climbing Lane Locations

Location (by Reference Post)	Direction/Travel Lane	Proposed Grade
RP 36.1	NB	3.89 %
RP 58.6	NB	2.49 %
RP 62.1	NB	2.78 %
RP 63.0	SB	4.00 %
RP 63.7	NB	5.00 %
RP 65.1	SB	6.00 %
RP 65.7	NB	5.00 %
RP 6.7.8	SB	6.00 %
RP 69.2	NS	3.49 %
RP 70.1	SB	2.52 %
RP 71.8	NB	3.65 %
RP 72.8	SB	4.00 %
RP 73.8	NB	2.80 %
RP 74.1	SB	4.00 %

Source: BRW Inc. (2001)

While these areas may meet minimum geometric requirements for climbing lanes, according to MDT's design guidelines, the following criteria would have to be met for the inclusion of any of these climbing lanes in the proposed reconstruction project.

1. The upgrade traffic flow rate is in excess of 200 vehicles per hour; and
2. The upgrade heavy vehicle (e.g., trucks, buses, recreational vehicles) flow rate is in excess of 20 vehicles per hour; and
3. The critical length of grade speed reduction is 15 km/h (9 mi/h) or greater; and
4. One of the following conditions exists:
 - a). The level of service (LOS) on the upgrade is D or worse, or
 - b). There is a reduction of two or more LOS experienced when moving from the approach segment to the upgrade.

Given the projected traffic volumes (particularly the low volume of truck traffic) and the LOS in the corridor, these areas do not warrant the inclusion of truck climbing lanes and will not be considered further for this project.

Full Service Rest Area in Dupuyer

A request was made that MDT assess the potential for upgrading the existing Rest Area north of Dupuyer, as part of the US 89 improvements. According to MDT's Planning Bureau, this rest area is currently included in the 1999 Montana Rest Area Plan for continued service. The traffic volumes on US 89 and the proximity of other rest area facilities will play a role in the planning of any future improvements to this rest area, however, none will be undertaken as part of this project and there are no plans for other near-term improvements.

3.0 AFFECTED ENVIRONMENT

This chapter describes the existing social, economic, and environmental conditions in the Fairfield to Dupuyer study corridor. The chapter serves as the baseline for assessing impacts associated with the proposed reconstruction and realignment of US 89 between Fairfield and Dupuyer. Chapter 4, Environmental Consequences and Mitigation, documents the analysis of social, economic, and environmental impacts against the existing baseline.

Guidance provided by the National Environmental Policy Act (NEPA at 42 U.S.C. 4332(2)(c); NEPA), Montana Environmental Policy Act (MEPA at 2-2-104 and 75-1-201 M.C.A.), the Federal Highway Administration (FHWA; TA 6640-8A), and the Montana Department of Transportation (MDT) identified subject areas requiring analysis. The following subjects have been identified and are documented in this chapter:

- Land Use
- Farmlands
- Social Conditions
- Economic Conditions
- Pedestrian and Bicycle Facilities
- Air Quality
- Noise
- Water Quality
- Wetlands
- Water Bodies and Wildlife Resources
- Floodplains
- Threatened and Endangered Species
- Historic, Archeological, and Paleontological Resources
- Hazardous Wastes
- Visual Resources

3.1 Land Use

The following sections provide an overview of the existing land use and zoning, recreational facilities, and transportation right-of-way (within the study corridor). Applicable local and regional comprehensive land use plans are also summarized.

Land Use and Zoning

The land use within the study corridor is primarily rural agricultural with expansive rangelands and lands in irrigated and dryland crop production. There are two incorporated cities (Fairfield and Choteau) and three unincorporated towns (Bynum, Pendroy and Dupuyer) located in proximity to the corridor. While the town of Fairfield is south of and outside the actual study corridor (at approximately RP/MP 28.3), it is considered to be within the area of influence of this corridor and will be included in the discussion in this section.

The town of Pendroy is also located outside the study corridor (east of US 89 between Bynum and Dupuyer) but will also be presented in this section.

There are approximately 277,000 ha (685,000 ac) of rangeland in Teton County. The bulk of this rangeland lies west of the study corridor and is primarily used for livestock grazing, and the land is generally not well suited for more intensive agricultural uses. However, some creek and valley bottoms are irrigated on an individual basis. There are an additional 234,700 ha (580,000 acres) of land in crop production, approximately 165,900 ha (410,000 ac) of which are dry croplands and 68,800 ha (170,000 ac) of which are irrigated. Major irrigated areas lie north and east of Choteau and consist of the Bynum Irrigation Project, Teton Co-op Canal Company, Farmers Co-op Canal Company, and the Eldorado Canal Company, along with several private ditches. Hay and grains are the primary irrigated crops.

No land use planning or zoning currently exists for any of the towns within the study corridor.

Local and Regional Plans

Comprehensive Development Plan for Teton County, Montana (1981). The Teton County Planning Board outlined planning policies to address development patterns, farmland protection, provision of public services, economic development, and environmental quality. No specific policies or recommendations are included with regard to US 89.

Teton County Overall Economic Development Plan (March 1998). The Teton County Commissioners authorized this study of economic conditions within the county. The Plan includes a presentation of census, labor, agricultural, natural resource, and financial data for the county, and outlines general economic development goals and strategies. US 89 is noted as being in generally good shape, and “no major rebuilds have been necessary in the last decade.” The Plan identifies a goal for the county to work with state and federal officials to continue to improve highways within the county.

Public Lands, Parks, and Recreational Facilities

There are several recreational facilities adjacent to US 89 within the study corridor. *Section 4(f)* of the Department of Transportation Act of 1966 (49 U.S.C. 303) affords special protection to specific resources, including:

- Publicly-Owned Public Parks, Recreational Areas, or Wildlife or Waterfowl Refuges officially designated as such, or when the agency having jurisdiction over the land determines one of its major purposes or functions is for park, recreation, or refuge purposes.
- Historic sites on or eligible for the *National Register of Historic Places* (NRHP) and archaeological sites on or eligible for the NRHP and which warrant preservation in place as determined by FHWA and the SHPO.

Freezout Lake Wildlife Management Area, located just north of Fairfield, encompasses approximately 4,850 hectares (12,000± acres) consisting of Freezout Lake, a number of interconnecting ponds, and a series of ditches and dikes to control water for waterfowl, marsh-dwelling birds, and many other species that inhabit wetlands. The area provides wildlife viewing of various wildlife around the wetlands area year-round.



The Savik Waterfowl Production Area, associated with the floodplain of Foster Creek, is also a popular birding area along the corridor. This site is owned and administered by USFWS.



Both the Freezout Lake Wildlife Management Area and the Savik Waterfowl Production Area are afforded protection under *Section 4(f)* as publicly owned recreational areas. NRHP sites protected by *Section 4(f)* are discussed in Section 3.13 of this chapter

The Teton-Spring Creek Bird Preserve is located approximately 4.0 km (2.5 mi) northwest of Choteau along US 89. The Preserve was established by the Fish & Game Commission in 1923 and has been managed as a bird preserve ever since. All lands within the Preserve are privately owned, but the area is administered by MFWP through an agreement with local landowners. As such, there is no public easement on this property, any public use must be approved by the local property owner, and the site is not afforded *Section 4(f)* protection.

In addition to the resources protected by *Section 4(f)*, coordination with MFWP identified six *National Land and Water Conservation Fund - Section 6(f) (16 U.S.C. 460)* properties within the general study area. None of these sites are in proximity to the proposed project and received no further consideration.

Additional areas served by the corridor include the Pine Butte Nature Preserve and guest ranch, Glacier National Park, the Bob Marshall Wilderness area, and the Teton Pass ski area 45 km (28 miles) west of Choteau.

Transportation Right-of-Way

US 89 in this corridor was constructed under six separate projects in the 1920's and 1940's. Existing right-of-way varies widely along the existing alignment. According to information gathered from right-of-way plan sheets and "As Built" plans, the general right-of-way is approximately 36.6 m (120± ft.) wide through the southern portion of the corridor, and narrows generally to 18.3 m (60± ft.) through the northern portion.

The Burlington Northern and Santa Fe Railroad (BNSF) is currently the only railroad serving the study corridor. The main BNSF line serving the area runs through Power and Dutton,

and continues north. A branch line from Fairfield to Choteau (originally operated by the Chicago, Milwaukee, St. Paul and Pacific) is also operated by BNSF.

In 1988, BNSF abandoned the spur line from Choteau north to Pendroy. Much of this railroad right-of-way was deeded to the state for use as highway right-of-way. However, in areas where the old rail line deviates substantially from the existing highway, the land is still owned by BNSF or has reverted back to private ownership.

3.2 Farmlands

The majority of land adjacent to the proposed project is utilized for agricultural purposes. The 1981 Farmland Protection Policy Act (FPPA) requires examination of the effects from proposed highway projects prior to the acquisition of farmlands classified by the Natural Resource Conservation Service (NRCS) as Prime, Prime if Irrigated, or Statewide/Locally Important Farmlands. Montana has approximately 399 ha (985 ac) of Prime and Unique Farmland designated. Pursuant to the FPPA, an inventory of farmland in the study area has been completed.

The existing US 89 alignment within Teton and Pondera counties crosses multiple farms and ranches. According to NRCS mapping, there are pocketed areas of prime and unique farmlands in the vicinity of US 89, primarily in the southern portion of the corridor. The existing alignment, however, does not transect any of these areas.

3.3 Social Conditions

The following section describes the general community characteristics and social conditions in the Study Corridor, including: city and county population, demographic and income data, and community and public facilities.

Population Data

According to the 2000 Census, Montana's population was 882,779. There were 6,440 people in Teton County and 6,450 people in Pondera County. Montana's population will be 984,000 by 2010 according to the Bureau of Business and Economic Research, at the University of Montana.

Table 3.1
Historic Population Trends

County	1990	2000	Percent Change 1990-2000
Teton	6,271	6,440	2.7 %
Pondera	6,433	6,450	0.3 %
Montana	799,065	882,779	10.5 %

Source: Population Estimates Program, Population Division, U.S. Census Bureau (Internet Release Date, March 9, 2000)

Demographic Composition

Generally, only minor variations exist in the gender, age, and race/ethnicity distribution of people in the corridor. The demographic composition is similar to the overall state composition.

According to the 2000 Census estimates, the majority of the population in Montana (approximately 90 percent) are Caucasian and less than two percent are Hispanic or Latino. Pondera County is 83 percent Caucasian and Teton County is 96 percent Caucasian.

The three year average (1998-2000) median household income was \$32,553.00 for Montana. The 1997 model-based estimate for the median household incomes in Pondera and Teton Counties was \$29,198.00 and \$27,944.00, respectively, compared to \$29,672.00 for the statewide average.

Community and Public Facilities

Community facilities include schools, libraries, meeting halls, and churches. Roughly 20 churches can be found in the five communities along the corridor. These churches are not located near the project alignment and therefore will not be considered in the impact analysis.

Table 3.2 lists the community facilities within the study corridor, most of which are not located adjacent to the existing US 89 alignment. However, within Choteau, the library and senior center are located on the north end of the courthouse traffic circle on US 89.

Table 3.2
Community and Public Facilities

City	Community Facilities	Public Services
Fairfield	Fairfield Elementary School – 109 7th St. N Fairfield High School – 13 7th St. N Golden Ridge School District 45 – 1130 3rd Rd. SW Golden Ridge School District 75 – 590 2nd Rd. NE Fairfield Public Library – 14 4th St. N Community Hall	Fairfield Police Fire
Choteau	Choteau Elementary School – 102 7 th Ave. NW Choteau High School – 204 7 th Ave. NW New Rockport Colony – 201 18 th Rd. NW Choteau Senior Citizens – 29 N Main Ave. Teton County Library – 17 N. Main Ave.	Teton Medical Center 915 4th St. NW Ambulance Service – 915 4th St. NW Fire Service
Bynum	Bynum School District 12 – 210 Central Ave.	none
Pendroy	Pendroy School District – 50 2nd St. N	none
Dupuyer	Dupuyer School District 2 – 7 Columbus Loop	none

Source: BRW, Inc. (2001)

3.4 Economic Conditions

Agriculture is the primary economic base for the study corridor, and currently the agricultural community is experiencing difficult times. The overall economies of Pondera and Teton Counties reflect the down turning agricultural economy. The younger generation has little

option but to leave the area for work, depleting the work force available for other industries considering locating in the area. An effort is being made to encourage value added products similar to Malt Montana. The *Teton Overall Economic Development Plan (March 1998)* states that, “The obvious solution to achieving a more progressive attitude toward business and business expansion among the majority of residents in Teton County is through education and exposure to positive results of economic development. If the few existing opportunities for business expansion which would create 10 or more jobs in the county (Malt Montana, agricultural processing, niche markets) are actively pursued and successfully completed, an improved attitude regarding business growth could begin to take hold.”

Tourism and recreation have increased over the past twenty-plus years, largely due to concerted efforts on the part of the local communities within the study area to promote their proximity to Glacier National Park, the Lewis & Clark National Forest, Bob Marshall Wilderness area, and a world-renowned paleontological dinosaur dig.

Employment Data

The services industry employees approximately 30 percent of the population, retail trade employs approximately 20 percent, and government jobs employ 16 percent, according to the Montana Department of Commerce. Construction, finance (categorized with insurance and real estate), manufacturing, farm employment, transportation & public utility, agricultural services (including forestry and fishing), and mining provide the remaining employment in their respective order.

3.5 Pedestrian and Bicycle Facilities

There are no bicycle-use restrictions on state or federal highways or interstates in Montana. As a main connecting route between Yellowstone and Glacier National Parks, US 89 experiences a high level of tourism travel, and cyclists often use this route as an alternative to the Interstate.

Currently, no separate paths or roadway right-of-way’s have been dedicated for bicycle use within the US 89 corridor, and with a small usable shoulder throughout the study corridor, no organized bike groups in the state have identified US 89 as a primary bike route.

The south end of Choteau consists largely of commercial development and has no sidewalks. US 89/Main Street has curb and gutter, and sidewalks from the courthouse north to 6th Street NW – generally considered the business district within Choteau. There are no sidewalks north of 6th Street NW.

Trail Inventory

According to the MDT pedestrian/bicycle coordinator, no state or county-planned pedestrian trails exist in Teton or Pondera counties, although occasional private paths and other trails may exist on rural properties. The nearest public hiking trails lie west of these counties, near the Rocky Mountain front range.

A walking path is being planned by the Choteau Sorooptimists, along with surrounding area residents and visitors, which could potentially tie into the shoulders on US 89 on the north and south ends of town. The walking path has tentatively been identified as a mile-long, off-highway path that would roughly follow the BNSF right-of-way and Spring Creek from south of the city limits to north of the Circle N restaurant. The Sorooptimists have approached MDT and FHWA to coordinate their trail concept with the US 89 improvements, but do not anticipate that the trail system would be part of, or funded by the US 89 project.

3.5 Air Quality

National Ambient Air Quality Standards (NAAQS) for criteria pollutants are set by the U.S. Environmental Protection Agency (EPA). The Montana Department of Environmental Quality (MDEQ) is the agency that sets and enforces air quality standards in Montana.

The NAAQS specify maximum allowable concentrations of airborne pollutants. Maximum limits are identified for carbon monoxide, particulate matter less than 10 microns in diameter (PM₁₀), ozone, sulphur dioxide, lead, and nitrogen dioxide.

The proposed US 89 project is located in an unclassifiable/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's "Final Rule" of September 15, 1997 on Air Quality conformity.

3.7 Noise

The following section discusses the analysis for traffic-related noise and summarizes the existing noise conditions within the study area.

Noise Terminology

Sound is quantified using a logarithmic unit called a decibel (dB). Since the human ear is more sensitive to middle and high frequency sounds than it is to low frequency sounds, sound levels are often weighted to more closely reflect human perceptions. This type of weighting is called "A weighting," and is expressed as dBA, which corresponds to the threshold of hearing.

Although a human ear can detect a sound level change as small as 1dB, 3dB is considered the smallest noticeable change for a time varying source. An increase, or decrease, of 10dB is perceived by most people to be a doubling or halving, of the loudness of sound.

"Noise" is often defined as "unwanted sound." Sounds are described as noise if they interfere with an activity or disturb the person hearing them. Sound levels fluctuate with time depending on the sound source audible at a specific location. Additionally, the degree of annoyance associated with certain sounds can vary by time of day, depending on other sound sources affecting a receiver and the activities of the receiver; for example, the interruption of

sleep can be very annoying. For these reasons, sound levels are usually reported using statistical or mathematical descriptors of the time history of sound. FHWA and MDT use the constant sound level (Leq) to evaluate noise impacts of transportation projects. The Leq is a constant sound level that has the same sound energy as the actual fluctuating sound being measured over a stated time period. (The time period used in the prediction of traffic-related noise is typically one hour).

Noise Abatement Criteria

FHWA produced guidelines for highway traffic noise analysis in the *Highway Traffic Noise Analysis and Abatement, Policy and Guidance* (revised June 1995), and MDT supports these guidelines through its own *MDT Traffic Noise Analysis and Abatement: Policy and Procedure Manual* (June 2001). This policy defines two conditions under which receptors (i.e. residences, schools, churches) are considered impacted by noise. First, receptors are considered impacted if predicted noise levels approach or exceed the Noise Abatement Criteria (NAC) shown in Table 3.3. These noise level criteria are in terms of the A-weighted, hourly averaged equivalent level (Leq) for the loudest hour conditions. The criteria are listed according to activity or land use, with the most sensitive land uses listed first. Residential receptors fall into Category B. To allow for some flexibility in the policy, MDT determined that receptors should be considered impacted where predicted noise levels approached their respective NAC. MDT defines “approach” as within one (1) dBA. Secondly, receptors are considered impacted if predicted design-year noise levels exceed existing noise levels by 13 dBA or more.

Table 3.3
FHWA and MDT Noise Abatement Criteria
Hourly A-Weighted Sound Level in Decibels (dBA)

Land Use Activity Category	Leq(h) dBA	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Cemeteries, commercial areas, industrial areas, office buildings, and other developed lands, properties, or activities not included in Categories A or B above.
D	No Limit	Undeveloped Lands, including roadside facilities and dispersed recreation. (A new or proposed subdivision meeting the requirements of Section A1 is Category B, not D.)
E	52 (Interior)	Motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. (The interior criterion only applies when there are no exterior activities to be affected by traffic noise.)

Note: These sound levels are only to be used to determine impact. These are the absolute levels where abatement must be considered. Noise abatement should be designed to achieve a substantial noise reduction – not the noise abatement criteria.

Source: Federal Highway Administration. *Highway Traffic Noise Analysis and Abatement*, June 1995, and *MDT Traffic Noise Analysis and Abatement: Policy and Procedure Manual* (June 2001)

Noise Analysis Methodology

For the traffic noise analysis, noise-sensitive receptors along the project corridor were identified, noise level measurements were conducted, and estimates of the Base Year (1999) traffic noise levels were made. The predicted Design Year noise level for each alternative was compared to the Present Year noise levels, and to the NAC to determine if impacts are anticipated to occur.

Ambient Noise Level Measurements

Ambient noise level measurements were conducted at seven locations along the project corridor. The number and types of vehicles that passed the measurement location during each measurement period were tallied. In general, the dominant noise source during each measurement period was traffic on US 89.

The ambient noise level measurements were used to calibrate the FHWA-approved Traffic Noise Model (TNM), Version 1.0. The TNM was used to estimate the traffic noise levels at the receptor locations and to determine if traffic noise impacts would occur in the project design year (2023). For each measurement location, the predicted traffic noise levels were within one dBA of the measured ambient noise levels. Table 3.4 summarizes the measured noise levels, and compares the measured levels to the predicted levels for the same traffic conditions.

Table 3.4
Measured Ambient Noise Level vs. Predicted Noise Level at Measurement Locations

Measurement Location	Closest Approximate Reference Post	Approximate Distance to Existing Centerline (CL)	Description	Measured $L_{eq}(h)$	Predicted $L_{eq}(h)$
1	RP 39.6	15.5 m E of CL	Approx. 0.1 miles N. of Teton River Bridge	61 dBA	62 dBA
2	RP 29.1	20.9 m W of CL	Approx. 0.8 miles N. of Freezeout Lake WMA HQ	60 dBA	59 dBA
3	RP 46.0	13.8 m W of CL	Approx. 0.6 miles S. of 90° turn in US 89	58 dBA	58 dBA
4	RP 43.4	10.8 m E of CL	Approx. 0.3 miles S. of Lumber yard	63 dBA	64 dBA
5	RP 73.3	15.3 m W of CL	Approx. 1.7 miles S. of Dupuyer	55 dBA	55 dBA
6	RP 66.3	5.3 m E of CL	Approx. 3.7 miles N. of MT 219	57 dBA	58 dBA
7	RP 47.5	11.0 m E of CL	Approx. 0.7 miles N. of 90° turn in US 89	60 dBA	61 dBA

Source: *Traffic Noise Study*, Big Sky Acoustics (February 15, 2002)

Predicted Present Year Traffic Noise Levels

Since the TNM appeared to be reasonably accurate, MDT's projected traffic volume data for the corridor was input to the model so that the noise levels for the No-Build and the proposed

alternatives could be estimated at the receptor locations. The predicted Base Year (1999) traffic noise levels at each receptor location are summarized in Table 3.5. The approximate distance between each receiver and the existing US 89 centerline is based on aerial photographs of the project corridor dated February 8, 1999.

Table 3.5
Predicted Present Year Traffic Noise Levels

Receiver	Closest Approximate Reference Post	Approximate Distance to Existing Centerline (CL)	Description	Predicted 1999 Leq(h)
PA28-6W	RP 28.6	67 m W	Freezout Lake Picnic Area	54
R39-1W	RP 39.1	57 m W	Residence	55
R39-2E	RP 39.2	30 m E	Residence	61
R39-2W	RP 39.2	58 m W	Residence	55
R39-6W	RP 39.6	35 m W	Residence	59
R40-0E	RP 40.0	75 m E	Residence	53
R40-1E	RP40.1	82 m E	Residence	52
R40.3W	RP 40.3	31 m W	Residence	60
R43-4W	RP 43.4	72 m W	Residence	52
R43-5W	RP 43.5	94 m W	Residence	49
R43.7E	RP 43.7	56 m E	Residence	54
R43-8W	RP 43.8	55 m W	Residence	54
R44-1W	RP 44.1	68 m W	Residence	52
R44-2W	RP 44.2	23 m W	Residence	61
R44-6W	RP 44.6	57 m W	Residence	53
R45-0W	RP 45.0	19 m W	Residence	62
R45-5W	RP 45.5	65 m W	Residence	52
R46-1W	RP 46.1	19 m W	Residence	61
R47-4W	RP 47.4	59 m W	Residence	51
R66-4E	RP 66.4	77 m E	Residence	47

Source: *Traffic Noise Study*, Big Sky Acoustics (February 15, 2002)

In general, the predicted Present Year traffic noise $L_{eq}(h)$ levels are less than 65 dBA at the receiver locations.

3.8 Water Quality

The Montana Department of Environmental Quality (DEQ) is required by Section 303(d) of the Clean Water Act to identify and prioritize those waters for which total maximum daily loads (TMDLs) are needed. These loads are an assessment of the amount of pollutant a waterbody can receive and not violate water quality standards. The TMDL determines how much "pollutant load" a lake or stream can assimilate. The calculations take into account pollution from all sources, including discharges from sewage treatment facilities and industry; runoff from farms, forests and urban areas; and natural sources. TMDLs provide a way to integrate the management of both point and nonpoint sources of pollution through the establishment of wasteload allocations for point source discharges and load allocations for nonpoint sources of pollution.

Under the TMDL assessment, threatened waterbodies are those that fully support their designated uses, but one or more beneficial uses may be impaired because either:

- there is a new or proposed pollution source in the watershed that is not subject to the requirement of a discharge permit, the Montana water quality nondegradation law, or reasonable soil, land, and water conservation practices, or
- there is a documented declining trend in water quality.

Impaired waterbodies do not (or are not expected to) fully meet water quality standards or would be considered threatened, even though EPA and state required technology-based controls and BMP's are already being used.

Recent TMDL litigation in the state of Montana has resulted in dispute over which 303(d) list (1996 or Final 2000) applies. As a result, waterbodies found on both the 1996 303(d) List and the Final 2000 303(d) List are discussed in this document. Table 3.6 identifies waterbodies listed on the 1996 303(d) List, which is a compilation of impaired and threatened waters in need of restoration. Table 3.7 identifies waterbodies in need of reevaluation.

Water quality problems within the major waterways in the study area include, but are not limited to, conductance, sodium, sulfate, pesticides, nitrates, sediments, and temperature. Low irrigation efficiency negatively impacts land use and stream use. Noxious weeds have become a problem in the watershed by reducing healthy vegetation which contributes to erosion and loss of grazing for cattle and wildlife.

Freezout Lake, in the Sun River Watershed, Teton River, in the Teton River Watershed, and Priest Butte Lake, in the Teton River Watershed are the three waterbodies listed on the MDEQ 303(d) list. The other waterbody in the project area to be monitored and reassessed is Spring Creek, in the Teton River Watershed.

Freezout Lake, which is 1,416 ha (3,500 ac), is partially supporting for aquatic life, warmwater fish, swimming, and agriculture, fully supporting for industry, and not supported for drinking water. The probable causes of impairment include selenium, sulfates, nutrients, noxious aquatic plants, and metals. The probable sources of impairment include agriculture, irrigated crop production, and crop-related sources.

The 121 ha (300 ac) Priest Butte Lake does not support aquatic life, warmwater fish, with no assessment (insufficient data) for drinking water, swimming, agriculture, and industry. The probable causes of impairment include metals and selenium. The probable sources of impairment includes agriculture, crop-related sources, and nonirrigated crop production.

The 68 km (42 mi) section of the Teton River from Deep Creek to Muddy Creek fully supports drinking water, swimming, and industry, with partial support for aquatics, coldwater fish, warmwater fish, and agriculture. The probable causes of impairment include salinity/TDS/chlorides, thermal modifications, flow alteration, other habitat alterations, suspended solids, and riparian degradation. The probable sources of impairment includes agriculture, crop-related sources, grazing related sources, hydromodification, channelization, flow regulation/modification, bank or shoreline modification/destabilization, municipal point sources, and habitat modification (other than hydromodification).

Table 3.6
Waterbodies in need of Total Maximum Daily Load Development

Watershed	Segment Name-Description	Size	Aquatic Life	Cold Fish	Warm Fish	Drinking	Swim (Rec.)	Agriculture	Industry
Sun	Freezout Lake	3500 ac	P		P	N	P	P	F
Teton	Priest Butte Lakes	300 ac	N		N	X	X	X	X
Teton	Teton River (from Deep Creek to Muddy Creek)	42 mi	P	P	P	F	F	P	F

Source: MDEQ website, 2002

F=Full Support; P=Partial Support; N=Not Supported; X=Not Assessed (Insufficient Data)

Table 3.7
Waters to be Monitored and Reassessed (Lacking Sufficient Credible Data)

Watershed	Segment Name-Description	Size	Aquatic Life	Cold Fish	Warm Fish	Drinking	Swim (Rec.)	Agriculture	Industry
Teton	Spring Creek (from headwaters to city of Choteau)	8.5 mi	X	X		X	X	X	X
Teton	Spring Creek (from the city of Choteau to the mouth (Teton R))	4.5 mi	X	X		X	X	X	X

Source: MDEQ website, 2002

X=Not Assessed (Insufficient Data)

Perennial and Intermittent Streams

The major perennial and intermittent streams within the study area are (from south to north): Teton River, Spring Creek, Foster Creek, Muddy Creek, Jones Creek, and the South, Middle, and North Forks of Dry Fork of the Marias River. Several ditches cross through the study area and include, but are not limited to Teton Ditch, Farmers Ditch, and Eldorado Ditch. Farmers Coulee and Jensen Coulee also cross through the study area.

3.9 Wetlands

The following section presents the wetland inventory for the US 89 study area.

Wetland Regulations

Wetlands are regulated by Section 404 of the Clean Water Act, Executive Order (EO) 11990 ("Protection of Wetlands"), and EO 11998 ("Floodplain Management"). EO 11998 requires federal agencies to take floodplain management into account when formulating or evaluating any water and land use plans. The U.S. Army Corps of Engineers (CoE) is the primary regulating agency in Montana. Under both the CoE and EPA regulations (33 CFR 328.3 and the 40 CFR 230.0), the term "wetlands" means those areas that are inundated or saturated by

surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

According to the CoE, “Waters of the United States” include those waters defined in 33 CFR 328.3(a). The lateral limits of jurisdiction in those waters may be divided into three categories. The categories include the territorial seas, tidal waters, and non-tidal waters. See 33 CFR 328.4 (a), (b), and (c) for a detailed definition of “Waters of the United States.”

Work permitted by the state in natural streams is covered under the Corps’ general Section 404 permit. DEQ also reviews potential impacts through their Section 401 water quality certification process. Through this process, DEQ will either waive Section 401 water quality certification, certify without conditions, certify with conditions, or they will deny Section 401 water quality certification.

Alterations to natural stream channels are regulated by MFWP through the 124SPA permit process. Work permitted by the state in natural streams is covered under the CoE General Permit 404.



There are a total of 36 jurisdictional wetland areas within the project corridor, generally depicted in Figure 3-1, including jurisdictional ditches and wetlands identified along the existing and alternative alignments. The jurisdictional wetlands in the project area are characterized as palustrine emergent, sedge meadow, alkali flat, deciduous forested, and scrub-shrub palustrine wetlands. The total delineated area (wetland area delineated within 152.4 m (500.0 ft) of the existing roadway centerline, and proposed roadway centerline for the alternative alignments) for the 36 wetlands within the project corridor, including wetlands along alternative alignments, is approximately 251.31 ha (621.0± ac).

An additional 11 wetland areas were determined to be non-jurisdictional ditches that are primarily irrigation ditches constructed in the upland habitat. Approximately 4.79 ha (11.83± ac) of non-jurisdictional wetland area was delineated within 152.4 m (500.0± ft) of the existing roadway centerline.

Table 3.8 identifies the jurisdictional wetland areas, and Table 3.9 identifies the non-jurisdictional wetland areas within the project corridor.

Table 3.8
Jurisdictional Wetland Data Summary

Wetland Number	Functional Category	Acreage*
29.50 LR	II	10.23 ha (25.28 ac)
30.00 LR	III	3.06 ha (7.56 ac)
30.40-34.50 LR	I	92.27 ha (228.0 ac)
35.00 LR	II	3.02 ha (7.46 ac)
35.70 LR	II	4.20 ha (10.38 ac)
36.80 LR	III	4.43 ha (10.95 ac)
37.20 LR	III	2.27 ha (5.61 ac)
37.90 LR	IV	0.59 ha (1.46 ac)
38.00 R	III	3.08 ha (7.61 ac)
38.50 LR	III	1.71 ha (4.23 ac)
39.20-39.80 LR	I	10.75 ha (26.56 ac)
40.60 LR	III	2.65 ha (6.55 ac)
44.00 L	I	6.96 ha (17.20 ac)
45.80 R	I	35.40 ha (87.47 ac)
46.00 L	I	11.73 ha (28.99 ac)
47.40 LR	IV	0.52 ha (1.28 ac)
48.30 LR	III	1.88 ha (4.65 ac)
49.50 LR	III	1.66 ha (4.10 ac)
49.80 R	III	0.10 ha (0.25 ac)
50.00 LR	III	0.80 ha (1.98 ac)
50.50 L	III	1.20 ha (2.97 ac)
53.50 LR	I	7.40 ha (18.29 ac)
55.70 LR	I	6.57 ha (16.23 ac)
57.30 LR	IV	0.30 ha (0.74 ac)
57.70 LR	III	2.03 ha (5.02 ac)
58.00 R	III	2.26 ha (5.58 ac)
59.20 LR	III	1.74 ha (4.30 ac)
60.00 LR	III	6.19 ha (15.30 ac)
63.20 LR	III	1.18 ha (2.92 ac)
65.30 LR	III	1.30 ha (3.21 ac)
68.00 L	III	0.29 ha (0.72 ac)
68.50 LR	III	1.01 ha (2.50 ac)
68.80 R	III	0.31 ha (0.77 ac)
73.50 LR	III	1.67 ha (4.13 ac)
70.70 LR	III	7.46 ha (18.43 ac)
M-1	III	0.78 ha (1.93 ac)
M-2	III	4.54 ha (11.22 ac)
M-3	III	2.73 ha (6.75 ac)

Source: *Biological Resources Report*, BRW, Inc. (2002)

* Estimated Area within 152.4 m (500 ft) of the existing roadway centerline

Note:

The wetlands were assessed for 12 wetland function and value variables and assigned one of four MDT Category ratings:

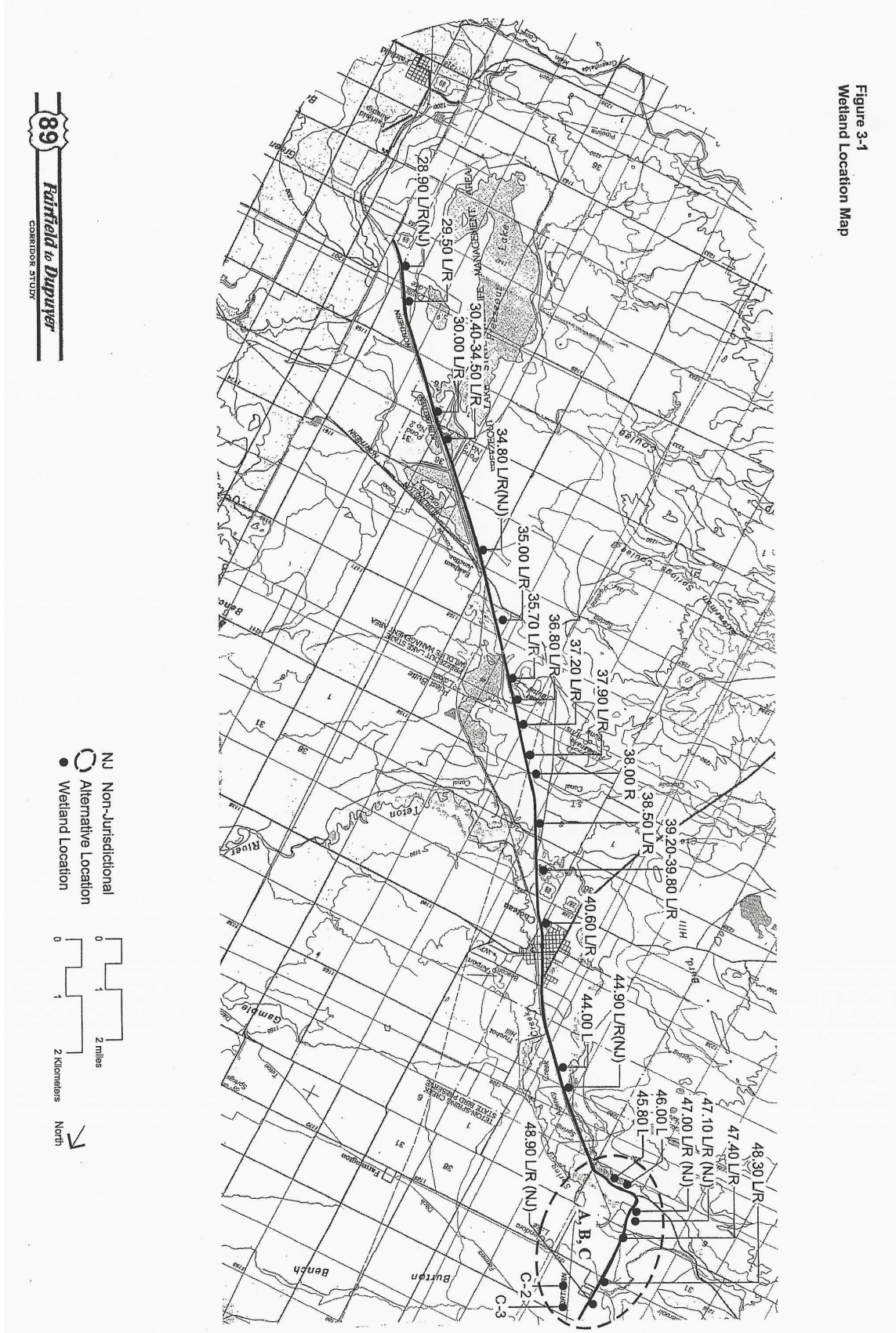
Category I – Exceptionally high quality.

Category II – More common than Category I, providing good quality habitat for sensitive plants or animals, function at very high levels for fish/wildlife habitat, or are unique in a given region.

Category III – More common, generally less diverse, and often smaller and more isolated than Category I and II wetlands.

Category IV – Generally small, isolated, and lack vegetative diversity.

Figure 3-1
Wetland Location Map



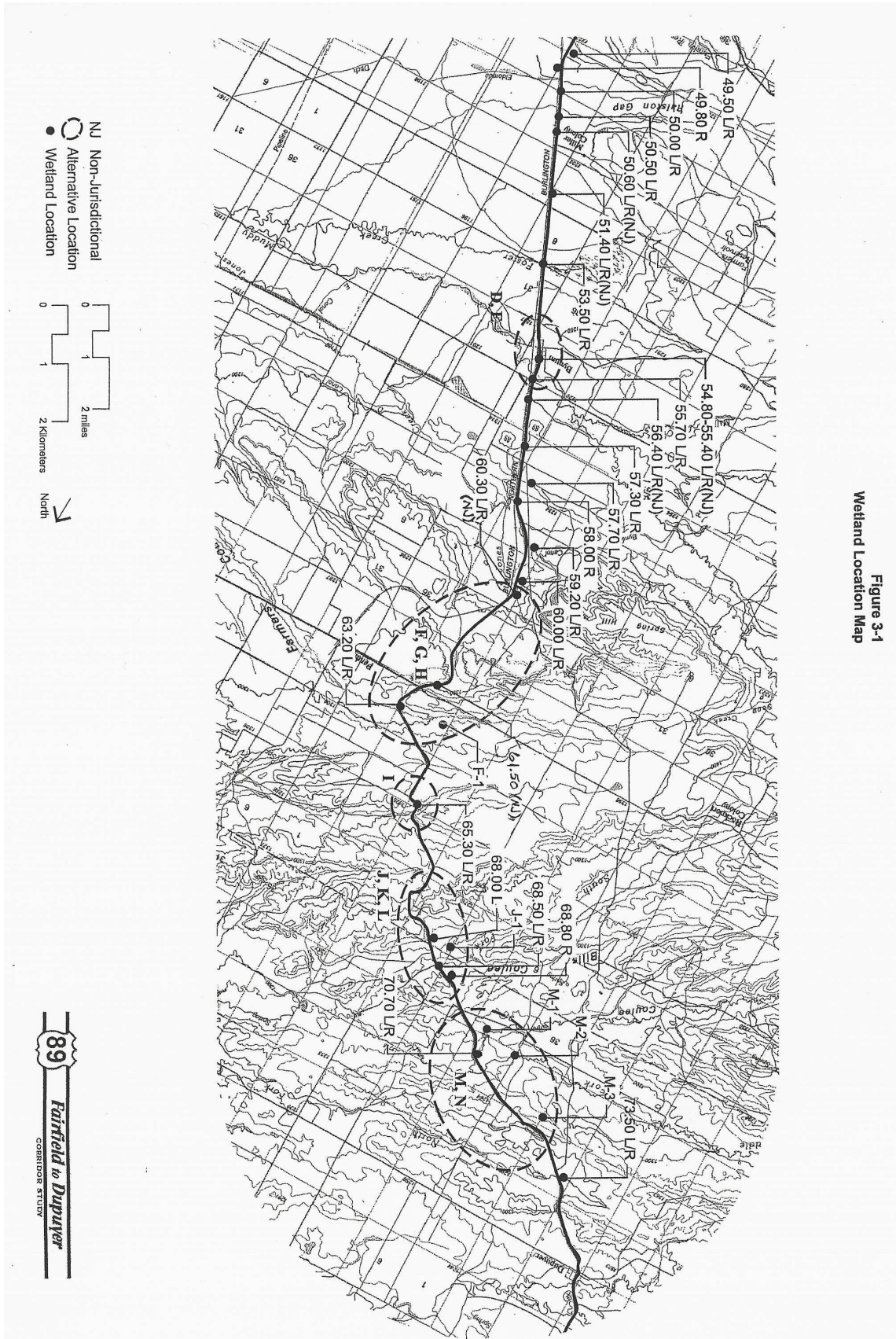


Figure 3-1
Wetland Location Map

Table 3.9
Non-Jurisdictional Wetland Data Summary

Wetland Number	Acreage*
28.90 LR	0.26 ha (0.64 ac)
34.80 LR	0.24 ha (0.59 ac)
44.90 LR	1.36 ha (3.36 ac)
47.00 LR	0.60 ha (1.48 ac)
47.10 LR	0.32 ha (0.79 ac)
48.90 LR	0.33 ha (0.82 ac)
50.60 LR	0.28 ha (0.69 ac)
51.40 LR	0.24 ha (0.59 ac)
54.80 – 55.40 LR	0.40 ha (0.99 ac)
56.40 LR	0.40 ha (0.99 ac)
60.30 LR	0.36 ha (0.89 ac)

Source: *Biological Resources Report*, BRW, Inc. (2002)

* (Estimated Area within 152.4 m (500 ft) of the existing roadway centerline)

3.10 Water Bodies, Wildlife Resources, and Habitat

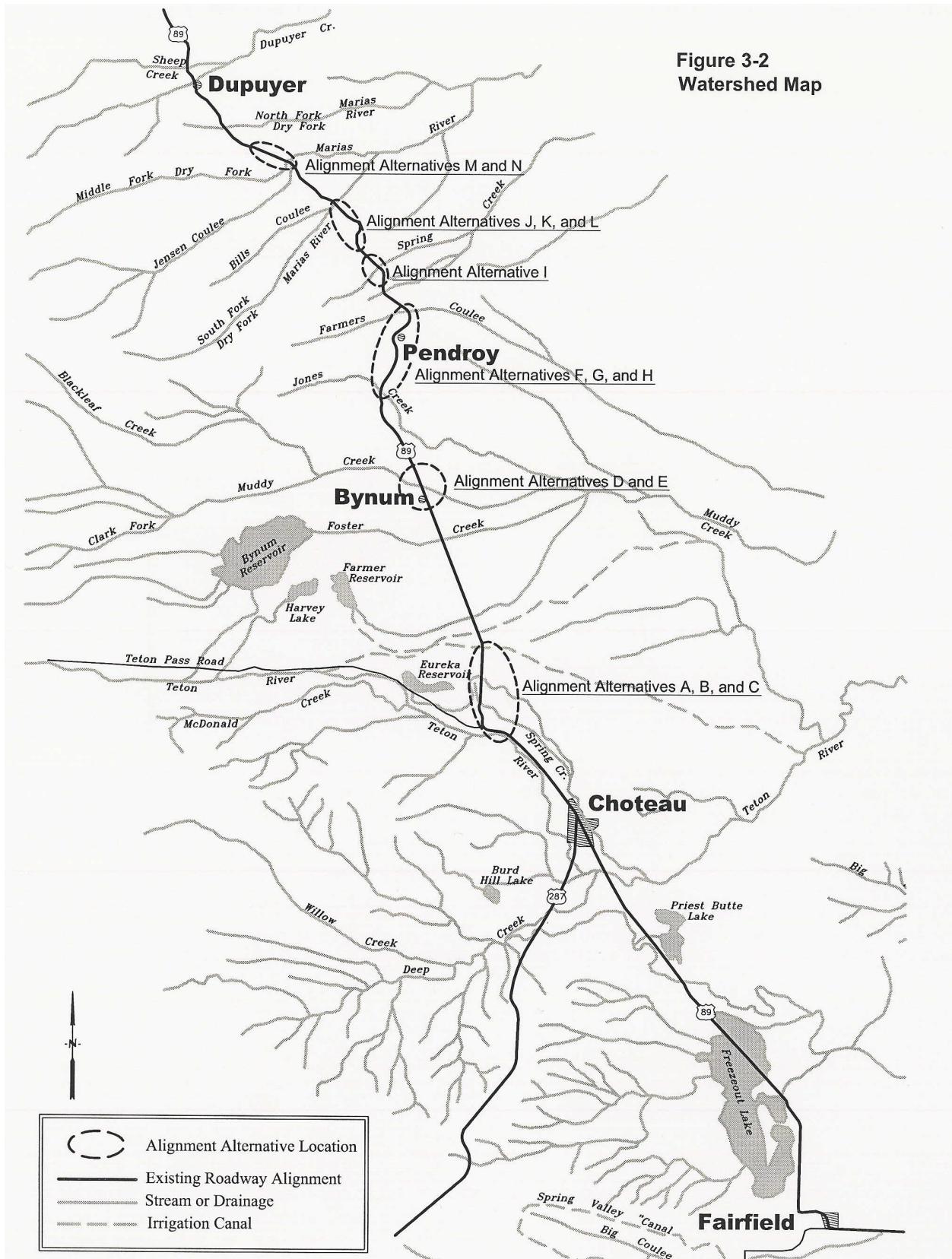
According to the BRR prepared for this proposed project, the following resources have been identified.

Aquatic Resources

The major perennial and intermittent streams within the project area are (from south to north): Teton River, Spring Creek, Foster Creek, Muddy Creek, Jones Creek, Farmers Coulee, Spring Creek, South Fork Dry Fork Marias River, Jensen Coulee, and the Middle, North Fork Dry Fork Marias River, and Matchett Coulee. Several ditches cross through the project area and include, but are not limited to the Cascade Canal, S-T Canal, Teton Ditch, Farmers Ditch, Eldorado Ditch, C Canal, and Bynum Canal. Figure 3-2 illustrates these stream crossings.

The project area is located within the Sun, Teton, and Marias River watersheds. Freezout Lake is located within the Sun River watershed. The Teton River originates on the east front of the Rocky Mountains and meanders east through rolling hills and grasslands to its confluence with the Marias River, a tributary to the Missouri River. The Teton River crosses through the project area south of the town of Choteau. Tributaries to the Teton River watershed include Spring Creek, Foster Creek, Muddy Creek, Jones Creek, and Farmers Coulee. The Marias River watershed includes Spring Creek, Jensen Coulee, and the South Fork, Middle Fork, and North Fork Dry Fork Marias River.

The Teton River is spanned by a steel truss bridge. Timber bridges are located at the crossings of the Muddy Creek, Jensen Coulee, and the Middle Fork, and North Fork Dry Fork Marias River. Culverts are located at the crossings of Spring Creek, Farmers Coulee, Spring Creek (Welenstein Coulee), and South Fork Dry Fork Marias River.



Vegetation

The majority of the native range habitat along the project corridor has been converted for agricultural production. The existing vegetation communities in the project corridor include the following categories: grasslands, riparian woodlands, wetlands, and agricultural land.

Much of the uplands within the project area are used for rangeland. In undisturbed areas, native grassland vegetation typically includes various wheatgrasses, bluegrasses, and bromes. Other common plants within the rangeland habitat include various sagebrush species and Curly-cup Gumweed. Broad-leaf deciduous trees and shrubs are concentrated along the floodplains of the Teton River, Spring Creek, Muddy Creek, and the South, Middle, and North Forks Dry Fork Marias River. Tree species include Trembling Aspen and Plains Cottonwood. The shrub stratum is dominated by Sandbar Willow and other willow species. The jurisdictional wetlands in the project area are characterized as palustrine emergent, sedge meadow, alkali flat, deciduous forested and scrub-shrub palustrine wetlands. Dominant herbaceous vegetation found throughout the palustrine emergent, sedge meadow, alkali flat wetlands include: Curly Dock, Red Saltwort, Western Sea Blite, Baltic Rush, Common Cattail, Softstem Bulrush, Reed Canary Grass, and Canada Bluegrass. Agricultural lands are located throughout the corridor. Generally, the agricultural lands are in hay production.

The MNHP database search revealed a historic element occurrence for the wetland plant species Great Basin Downingia within Freezout Lake WMA.

Noxious Weeds

Based on communication with the Weed Inspectors for Teton and Pondera counties in February 2000, scattered infestations of Spotted Knapweed, Russian Knapweed, Leafy Spurge, Field Bindweed, and Houndstongue are known to occur in the project area between the town of Dupuyer and the Teton – Pondera County line. Large infestations of Leafy Spurge have been mapped within the existing right-of-way from the town of Choteau to approximately 8 km (5± mi) north of Choteau. Infestations of Spotted Knapweed are known to occur within the right-of-way near the southern extension of Freezout Lake, from Choteau to 8 km (5± mi) north of Choteau, and from the Pendroy Junction to 10 km (6± mi) north of the Pendroy Junction. Dalmation Toadflax has been mapped from the eastside of US 89 from 3 to 5 km (2 to 3 mi) north of the Pendroy Junction. In accordance with Executive Order 13112, the contractor will be required to notify appropriate county weed districts and file a weed management plan prior to initiation of earth moving construction activities.

Noxious weeds identified at Freezout Lake WMA include Spotted Knapweed, Leafy Spurge, Whitetop, and Purple Loosestrife. Spotted Knapweed is the more prevalent noxious weed found throughout Freezout Lake WMA, with more sparse localized populations of Whitetop and Leafy Spurge. The Purple Loosestrife invasion was immediately eradicated and has not recolonized at Freezout Lake WMA.

Wildlife

Wildlife within the project area includes species typical of rangelands, agricultural fields, riparian woodlands and open water wetland habitats.

Wildlife species typical of grasslands include: White-tailed Deer, Mule Deer, Pronghorn, White-tailed Jackrabbit, Red Fox, Raccoon, Badger, Coyote, Striped Skunk, ground squirrel, songbirds and raptors. Fencerows, irrigation ditches, and pastures associated with agricultural lands provide habitat for songbirds, deer, rabbit, ground squirrels, and other small mammals.

Riparian woodlands provide prime nesting habitat for a large number of birds including eagles, hawks, owls, and a variety of songbirds. Riparian woodlands also provide travel and foraging habitat for mammals.

The bridges and culverts in the project corridor provide nesting and roosting habitat for swallows, other songbird species, owls, and potentially bat species. These structures also provide safe passage for mammal, reptile, and amphibian species that use stream habitats and riparian areas for travel corridors.

The wetlands and open water habitat associated with the Freezout Lake WMA provide prime habitat for waterfowl. Many species of hawks and owls, Ring-necked Pheasant, and Gray Partridge can be observed in winter. During March and April, waterfowl migration begins. Starting in September, fall migration of waterfowl begins with teal and Northern Pintail, and continues until the freeze when Canada Geese and Tundra Swan leave the area. The project corridor, including Freezout Lake WMA, is within the potential range for the following bird species of concern: Common Loon, American White Pelican, Black-crowned Night-heron, White-faced Ibis, Trumpeter Swan, Bald Eagle, Ferruginous Hawk, Peregrine Falcon, Mountain Plover, Franklin's Gull, Caspian Tern, Common Tern, Forster's Tern, Black Tern, Burrowing Owl, Sprague's Pipit, and Baird's Sparrow.

A variety of reptiles and amphibians have distributional ranges in Teton and Pondera counties including but not limited to: Short-horned Lizard, Gopher Snake, Common Garter Snake, Western Terrestrial Garter Snake, Rubber Boa, Racer, Western Rattlesnake, Western Hognose Snake, Plains Spadefoot, Boreal (Western) Toad, Tiger Salamander, Western Chorus Frog, Spotted Frog, Northern Leopard Frog, and Painted Turtle. The following amphibian and reptile species are listed as species of concern and are known to occur in Teton and Pondera counties: Northern Leopard Frog, Boreal (Western) Toad, Great Plains Toad, and Western Hognose Snake.

According to the USFWS, the project area is within the potential range for the Grizzly Bear, Bald Eagle, Mountain Plover, Gray Wolf, Canada Lynx, and Montana Arctic Grayling.

Species of Concern

According to the Montana Natural Heritage Program (MNHP), the project area is within the potential range for the following bird species of concern: Common Loon, American White

Pelican, Black-crowned Night-heron, White-faced Ibis, Trumpeter Swan, Bald Eagle, Ferruginous Hawk, Peregrine Falcon, Mountain Plover, Franklin's Gull, Caspian Tern, Common Tern, Forster's Tern, Black Tern, Burrowing Owl, Sprague's Pipit, and Baird's Sparrow. Table 3.10 outlines the Montana animal and plant species of concern.

Table 3.10
Montana Animal and Plant Species of Concern

Common Name	Scientific Name	Known Distribution in Project Area
American White Pelican	<i>Pelecanus erythrorhynchos</i>	No nesting known to occur at Freezout Lake WMA or along the project corridor. Summer resident at Pond 1 and generally observed throughout the WMA. Breeding colony at Arod Lake.
Baird's Sparrow	<i>Ammodramus bairdii</i>	In 1993 and 1994, nesting suspected near south end of Freezout Lake WMA. Confirmed sighting of an individual 3.2 to 4.8 km (2 to 3 mi) north of Bynum. Known to nest along US 89 north of Dupuyer, and Pendroy Junction north to Dupuyer.
Bald Eagle	<i>Haliaeetus leucocephalus</i>	No nesting known to occur at Freezout Lake WMA or along the project corridor. Spring and fall migrants, with some winter use by individuals at Freezout Lake WMA and project corridor.
Black-crowned Night-heron	<i>Nycticorax nycticorax</i>	Nests at Freezout Lake WMA, in the main lake south of Pond 6, and generally throughout the WMA. Forages along irrigation ditches on east side of US 89 in Freezout Lake WMA, and in bulrush vegetation on west side of US 89.
Black Tern	<i>Chlidonias niger</i>	Known to nest at Freezout Lake WMA. On the west side of US 89, a colony of 20 to 30 birds nests at Pond 3 within 61.0 m (200.0 ft) of US 89. At Pond 2 east of US 89, a colony of 20 to 30 birds are known to nest. In 1996, three colonies with a total of 22 nests observed directly south of Pond 2. Colony on Main Lake south of Pond 6.
Burrowing Owl	<i>Athene cunicularia</i>	Infrequent nester at Freezout Lake WMA, and along project corridor. Known to nest on the west side of the Main Lake, and southwest of the Headquarters Office. Known to nest east of Pendroy Junction.
Caspian Tern	<i>Sterna caspia</i>	Rare breeder at Freezout Lake WMA. Not known to occur elsewhere in project corridor. Sightings at Pond 1, Main Lake and throughout Freezout Lake WMA.
Common Loon	<i>Gavia immer</i>	Common spring and fall migrant, with no known breeding at Freezout Lake WMA and project corridor. During spring migration, lone individuals often observed at Priest Butte Lake, and Pond 3 at Freezout Lake WMA.
Common Tern	<i>Sterna hirundo</i>	Common breeder at Freezout Lake WMA, not known to occur elsewhere in project corridor. Nests within an extensive portion of the Freezout Lake WMA, including islands on Ponds 1, 2, 3, and 5 and southern end of Freezout Lake.
Ferruginous Hawk	<i>Buteo regalis</i>	Infrequent visitor to Freezout Lake WMA. Suitable habitat is present in the dissected landscape between Pendroy Junction, north to the town of Dupuyer, and a large area lying west of Choteau and both north and south of town. Additional nests have been observed in the buttes surrounding the west edge of Freezout Lake, but no confirmed nesting has been recorded.

table continues

Table 3.10 (Continued)
Montana Animal and Plant Species of Concern

Common Name	Scientific Name	Known Distribution in Project Area
Forster's Tern	<i>Sterna forsteri</i>	Common nester at Freezout Lake WMA, primarily at the south end of the WMA. Known to nest on island in Main Lake south of Pond 6, and east of the Lower Peninsula. Also known to use Pond 2 and 5, but also nests throughout the WMA. Occasionally observed at wetland areas north of Freezout Lake WMA.
Franklin's Gull	<i>Larus pipixcan</i>	Common breeder at Freezout Lake WMA. Known to nest at Pond 2, north end of Main Lake, and the Main Lake south of Pond 6.
Mountain Plover	<i>Charadrius montanus</i>	No nesting records for the project corridor or Freezout Lake WMA. Historically, known to nest 4.8 to 6.4 km (3 to 4 mi) south of Freezout Lake WMA on sheep grazed native rangelands.
Peregrine Falcon	<i>Falco peregrinus</i>	Not known to nest at Freezout Lake WMA or the project corridor. Spring and fall migratory use of Freezout Lake WMA, and project corridor.
Sprague's Pipit	<i>Anthus spragueii</i>	Uncommon nester at Freezout Lake WMA. Occasionally observed along the visitor route at the southwest corner of Freezout Lake WMA. Not known to occur elsewhere along the project corridor.
Trumpeter Swan	<i>Cygnus buccinator</i>	No known nesting at Freezout Lake WMA, or along the project corridor. Spring and fall migrants stopover at Freezout Lake WMA, and small pothole /wetland areas north to Dupuyer.
White-faced Ibis	<i>Plegadis chihi</i>	Infrequent breeder at Freezout Lake WMA. A few pairs of breeding adults are known to use Freezout Lake WMA. Post-breeding dispersers use Freezout Lake WMA, and wetland areas to the north. During migration known to rest and feed at Pond 3 along the west side of US 89.
Dwarf Shrew	<i>Sorex nanus</i>	Suitable habitat exists along project corridor.
Preble's Shrew	<i>Sorex preblei</i>	Suitable habitat exists along project corridor.
Fringed Myotis	<i>Myotis thysanodes</i>	Suitable habitat exists along project corridor.
Swift Fox	<i>Vulpes velox</i>	Suspected sightings north of Choteau. Observations likely of transient individuals from the reintroduction efforts on the Blackfeet Indian Reservation.
Grizzly Bear	<i>Ursus arctos horribilis</i>	Roughly 40 to 50 Grizzly Bear are known to forage near US 89 between Choteau and Dupuyer, primarily along the major drainages in the project corridor.
Canada Lynx	<i>Lynx Canadensis</i>	No documented lynx activity in the project corridor.
Gray Wolf	<i>Canis lupus</i>	No documented wolf activity in the project corridor. Suitable habitat along the East Front
Boreal (Western) Toad	<i>Bufo boreas</i>	Not documented in project corridor or at Freezout Lake WMA. Suitable habitat exists along project corridor.

table continues

Table 3.10 (Concluded)
Montana Animal and Plant Species of Concern

Common Name	Scientific Name	Known Distribution in Project Area
Great Plains Toad	<i>Bufo cognatus</i>	Suitable habitat exists along project corridor. One record for Great Falls area.
Western Hognose Snake	<i>Heterodon nasicus</i>	Not documented in project corridor or at Freezout Lake WMA. Suitable habitat exists along project corridor, records for Conrad area.
Northern Leopard Frog	<i>Rana pipiens</i>	Not documented in project corridor or at Freezout Lake WMA. Suitable habitat exists along project corridor.
Northern Redbelly X Finescale Dace	<i>Phoxinus eos</i> X <i>phoxinus neogaeus</i>	Nine specimens collected from Eureka Reservoir in 1985. Could potentially occur in permanently flowing stretches of the Teton River in the project corridor.
Montana Arctic Grayling	<i>Thymallus arcticus montanus</i>	Known to occur in the Sun River Slope Canal and Pishkun Reservoir. Escapees from these systems known to occur downstream in Sun River Slope Canal, the Greenfield irrigation system, and potentially in Freezout and Priest Butte Lakes.
Great Basin Downingia	<i>Downingia laeta</i>	Last observed in 1943, approximately 1.6 km (1.0± mi) west of US 89 near Freezout Lake WMA.

Source: *Biological Resources Report*, BRW, Inc. (2002)

Grasslands

Much of the uplands within the study area are used for rangeland. Open areas adjacent to the highway consist of mixed grasses and forbs. The most common land use in upland areas within the US 89 study area is rangeland. Common dominant grasses in rangeland include crested wheatgrass (*Agropyron cristatum*), and various bluegrasses (*Poa* spp.) and bromes (*Bromus* spp.). Other common plants within rangeland include various sagebrush species (*Artemisia* spp.) and curly-cup gumweed (*Grindelia squarrosa*). Areas with an over-abundance of sagebrush (*Artemisia* spp.) are generally indicative of over-grazing.

Riparian Woodlands

Broad-leaf deciduous trees and shrubs are concentrated along the floodplains of the major drainages in the study area, including but not limited to: Teton River, Muddy Creek, Spring Creek, and the South, Middle, and North Forks of Dry Fork of the Marias River. Tree species likely to be found in the tree stratum include the big-toothed aspen (*Populus grandidentata*) and the Great Plains cottonwood (*Populus deltoides*). The shrub stratum is likely to be dominated by sandbar willow (*Salix exigua*) and other willow species (*Salix* spp.).

Fisheries

The Teton River, a tributary of the Marias River, is nearly completely dewatered upstream of the town of Choteau, primarily as a result of irrigation. The Montana Rivers Information System (MRIS) was searched for fisheries information for the Teton River between the confluences of Spring Creek (River Mile 151.8) located east (downstream) of the project area, and Hod Main Coulee (River Mile 162.7) located west (upstream) of the project area. The MRIS database was also searched for fisheries information for the 10 drainages in the project area; however, no fisheries survey data exists for these drainages with the exception

of Spring Creek a tributary to the Teton River. Fish species composition, abundance and stream use for this reach of the Teton River and Spring Creek is presented in Tables 3.11 and 3.12.

Table 3.11
Fish Species Records for Teton River between Spring Creek (River Mile 151.8) and
Hod Main Coulee (River Mile 162.7)

Fish Species	Abundance	Stream Use
Brook Trout	Uncommon	Year-round resident
Brown Trout	Common	Year-round resident
Common Carp	Uncommon	Year-round resident
Emerald Shiner	Common	Year-round resident
Fathead Minnow	Uncommon	Year-round resident
Flathead Chub	Uncommon	Year-round resident
Goldeye	Common	Primarily spawning and rearing
Longnose Dace	Common	Year-round resident
Longnose Sucker	Uncommon	Year-round resident
Minnow	Common	Year-round resident
Mottled Sculpin	Uncommon	Year-round resident
Mountain Sucker	Uncommon	Year-round resident
Mountain Whitefish	Uncommon	Year-round resident
Rainbow Trout	Common	Year-round resident
White Sucker	Common	Year-round resident

Source: MRIS, 2001

Spring Creek, a tributary of the Teton River located east (downstream) of the project area, is dewatered and due to irrigation has resulted in the overall degradation of Spring Creek; however, during normal flow years, most fish species known to occur in this section of the Teton River are also present in Spring Creek. Fish species composition, abundance, and stream use for Spring Creek is presented in Table 3.12.

Table 3.12
Fish Species Records for Spring Creek from the headwaters to the confluence
with the Teton River

Fish Species	Abundance	Stream Use
Brook Trout	Common	Year-round resident
Longnose Dace	Common	Year-round resident
Longnose Sucker	Common	Year-round resident
Mottled Sculpin	Common	Year-round resident
Mountain Sucker	Uncommon	Year-round resident
Rainbow Trout	Common	Year-round resident
White Sucker	Common	Year-round resident

Source: *Biological Resources Report*, BRW, Inc. (2002)

The other drainages in the project area from a south to north direction include the following:

- Foster Creek, a tributary of Muddy Creek;
- Muddy Creek, a tributary of the Teton River;
- Jones Creek, a tributary of Muddy Creek;
- Farmers Coulee, a tributary of Muddy Creek;
- Spring Creek, a tributary of Dry Fork Marias River;
- South Fork Dry Fork Marias River, a tributary of Dry Fork Marias River;
- Jensen Coulee, a tributary of Middle Fork Dry Fork Marias River;
- Middle Fork Dry Fork Marias River, a tributary of Dry Fork Marias River; and
- North Fork Dry Creek, a tributary of Dry Fork Marias River.

According to the BRR, none of the abovementioned drainages have had fish population surveys conducted to date. These intermittent waterways likely only support a very limited assemblage of fish species during high water events. According to the MFWP fisheries biologist, Muddy Creek has not been surveyed to date, but it is known to support small populations of Rainbow Trout, Brook Trout, Brown Trout, and White Sucker.

According to the MNHP, a fish species of concern, the Northern Redbelly X Finescale Dace hybrid, is documented as occurring in Eureka Reservoir. This species could also occur in permanently flowing stretches of the Teton River near the project area.

Irrigation Ditches

The following irrigation ditches were also identified within the corridor.

Greenfields Irrigation District -- South of the project limits.
Teton Ditch – Teton Cooperative Canal
Eldorado Ditch – Eldorado Ditch Company
Irrigation systems between Choteau and Bynum – Bynum Irrigation District
Farmers Ditch – Farmers Cooperative Canal Company
Private ditch at the north end of Choteau – Ottis Bryan
Private ditch – Pat Saylor

3.11 Floodplains

This section provides an inventory of the designated 100-year floodplains within the study area. Executive Order 11988 defines a “floodplain” as lowland and relatively flat areas adjoining inland and coastal waters including floodprone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in a given year.

E.O. 11988 and FHWA’s floodplain regulation (23 CFR 650, Subpart A) require an evaluation of the proposed action to determine if any of its alternatives encroach on the “base” floodplain. The “base” floodplain is defined as the area covered by water from a “100-year” flood. The “100-year” flood represents an event that has approximately a one

percent chance of occurring in any year. The inventory for this section included a review of the Flood Insurance Rate Map(s) for the study area.

Of the 17 rivers, streams, and ditches identified in the previous section as crossing the study corridor, three have FEMA designated 100-year floodplains associated with them. The three designated floodplains are: the Teton River, north and south of Choteau; Spring Creek, north of Choteau; and Muddy Creek, north of Bynum. A supplemental study of Spring Creek, to determine the influence from the Teton River, was performed for the City of Choteau. An approximate study was performed for Muddy Creek. No other studies have been conducted for any of the other drainages in the study area.

Through much of the corridor, US 89 was constructed on an embankment which must pass drainage and irrigation flows generally from west to east. In many places, US 89 restricts natural drainage patterns producing wet areas with standing water on the upstream side of the roadway.

In and around the town of Choteau, the Teton River floodplain co-mingles with flows from Spring Creek. North of Choteau, US 89 acts as a longitudinal levee separating the two basins; however, floodwaters from the Teton River enter Spring Creek by crossing over Teton Pass Road. Since Spring Creek runs through town, the trans-basin flow creates increased flooding to structures within the town of Choteau. Altering of the roadway profile in and around Choteau could have substantial effects to the Teton River and Spring Creek floodplains - both of which have been documented to contribute to flooding problems within Choteau.

At RP 44.5, a small levee has been constructed between the main channel of the Teton River and US 89. The levee acts as erosion protection to the roadway embankment by deflecting flows away from the roadway; however, it does not act as a flood control device. Altering of this levee could affect the immediate downstream floodplain where a few houses exist.

Storm Sewer Systems

There are no curb and gutter / storm sewer network systems located along the project. The Town of Choteau has curbs and gutters along US 89, but a storm sewer system does not exist. Stormwater runoff from US 89 sheet flows away from the roadway towards the Teton River to the west and Spring Creek to the east. The system lacks adequate grades to properly remove the stormwater, which has resulted in the frequent ponding of water in town.

3.12 Threatened and Endangered Species

According to the BRR prepared for this project, four federally listed species, one proposed species, and one candidate species could potentially occur in the project area. Table 3.13 provides a summary of status and distribution of these species.

Table 3.13
Federally Listed Species

Common Name	Scientific Name	Status	Known Distribution in Project Area
Grizzly Bear	<i>Ursus arctos horribilis</i>	Threatened	Use of riparian habitats along the Teton River, Muddy Creek, Foster Creek, and Dupuyer Creek. Roughly 40 to 50 grizzlies are known to forage near US 89 between Choteau and Dupuyer.
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened	Bald eagles have been observed migrating through the project area in the spring and fall; however, no nests are currently known within the project area.
Mountain Plover	<i>Charadrius montanus</i>	Proposed Threatened	Not known or expected in the project area. The project corridor is likely too wet and too far west for the mountain plover. No prairie dog colonies were observed.
Canada Lynx	<i>Lynx canadensis</i>	Threatened	The US 89 corridor is not mapped as suitable lynx habitat based elevation and habitat. Remote possibility that lynx would use riparian areas to disperse; however, there have been no recordings to date.
Gray Wolf	<i>Canis lupus</i>	Endangered	No documented wolf activity in the project area. Wolf activity, and suitable habitat along the East Front.
Montana Arctic Grayling	<i>Thymallus arcticus montanus</i>	Candidate	The Montana Arctic Grayling is known to occur in the Sun River Slope Canal and Pishkun Reservoir west of the project area. Based on 1 confirmed occurrence record of Montana Arctic Grayling in Priest Butte Lakes, it is speculated that some Montana Arctic Grayling from Pishkun Reservoir, Pishkun Canal, and Sun River Slope Canal systems eventually end up in the Greenfield irrigation system that supplies water to Freezout Lake and Priest Butte Lakes. Montana Arctic Grayling are not suspected or known to be present in the other waterbodies in the project area.

Source: *Biological Resources Report*, BRW, Inc. (2002)

Grizzly Bear (Threatened). The Grizzly Bear was classified as a threatened species by the USFWS on September 1, 1975. Presently, the Grizzly Bear is found in only two percent of its former range in the lower 48 states. According to the BRR, the Grizzly Bear is expanding its range to the east which now encompasses both the east and west sides of US 89 near Choteau northward to the northern terminus of the project. While the US 89 project area is presently a few miles east of the Grizzly Bear Recovery Zone, potential impacts to the Grizzly Bear as a result of any proposed improvements to US 89 must be considered. It is anticipated that the Grizzly Bear Recovery Zone will be adjusted to the east within the next few years using US 89 as the eastern boundary.

Bald Eagle (Threatened). The Bald Eagle is federally listed as threatened by the USFWS. Bald Eagles prefer to nest in the tallest trees available. Open water is a critical component of both summer and winter habitat, and nearly all nests are within 3.2 km (2.0± mi) of large

rivers or open water bodies. According to the BRR, Bald Eagles have been observed migrating through the project area in the spring and fall; however, no nests are currently known within the project area. Bald Eagles are known to utilize Freezout Lake WMA and the project area during the spring and fall migrations, with some eagles wintering in the project area during mild winters. The Bald Eagle nest nearest to the project area is located close to the town of Simms, approximately 10 km (6± mi) south of the southern terminus of the project area.

Mountain Plover (Proposed Threatened). Suitable habitat for the Mountain Plover is considered to be semi-arid grasslands, plains, and plateaus. Occurrences of the Mountain Plover are typically associated with the existence of prairie dog towns, large flat grassy expanses, and/or areas subject to intensive livestock grazing. These locations are characterized by very short and/or disturbed vegetation.

According to the BRR, the project corridor is likely too wet and too far west for the Mountain Plover. Absence of prairie dog colonies is also a likely reason why there are no known occurrences of the Mountain Plover in the general vicinity of the project corridor.

Lynx (Threatened). In March 2000, the USFWS listed the Canada Lynx in the contiguous United States as a threatened species under the ESA.

Canada Lynx in the Northern Rockies prefer moist sub-alpine forests of Douglas-fir, Western Spruce/Fir, and Fir/Hemlock with a dense understory of woody vegetation. Canada Lynx prey primarily on snowshoe hare, although Red Squirrel is an important alternative prey. Canada Lynx seem to prefer to travel through coniferous forests, although they will use ridges, saddles, and riparian areas.

According to the BRR, the US 89 corridor is not mapped as suitable Canada Lynx habitat based on snow depth and cover. The closest Canada Lynx habitat is found in the Lewis and Clark National Forest to the west of the project corridor. Generally, areas under 1,829 m (6,000± ft) in elevation are not considered to be suitable Canada Lynx habitat. Contiguous forested stands with a dense understory that provides habitat for a good population of Snowshoe Hares is not characteristic of the project corridor, and therefore, the project corridor is not mapped as suitable Canada Lynx habitat.

Gray Wolf (Endangered). In 1974, the Gray Wolf was listed as an endangered species by the USFWS. In 1987, the USFWS developed a recovery plan for the Gray Wolf in the northern Rockies that identified northwestern Montana, central Idaho, and the Greater Yellowstone Area (GYA) as recovery areas. As part of the recovery plan, the USFWS established a biological goal of fewer than 10 breeding pairs of wolves in each of these three areas for three successive years. However, wolves in the northwestern Montana recovery area remain listed as endangered.

According to the BRR, no active wolf dens or wolf pack activity are known to occur in the project area. The project area is considered to be too far east to impact Gray Wolf activity

since the closest wolf pack activity to the project area is approximately 40.0 km (25.0 mi) southwest of Choteau near Gibson Reservoir.

Montana Arctic Grayling (Candidate). The Montana Arctic Grayling is considered as a candidate species by the USFWS. This fish species is known to occur in coldwater streams, but does well in lakes, except for spawning purposes. In Montana, two life forms of Arctic Grayling exist: adfluvial (lake dwelling, stream spawning) and fluvial (river dwelling). These forms are genetically and behaviorally distinct. The adfluvial form was originally native to the Red Rock Lakes basin but its range has expanded through stocking in mountain lakes. Historically, fluvial grayling were widely distributed throughout the Missouri River and tributaries upstream from Great Falls, Montana.

3.13 Historic, Archeological, and Paleontological Resources

Historic and cultural resources are defined in Section 301 of the National Historic Preservation Act (NHPA) of 1966, as amended, as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP) [16 USC 470W].” Cultural resources are determined for listing on the NRHP through consideration of established criteria. To be eligible for listing on the National Register, the property in question must be important in American history, architecture, archaeology, engineering, or culture, while also possessing integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, properties must meet at least one of the following four criteria:

- A. Association with events that have made a significant contribution to the broad patterns of the area’s history.
- B. Association with the lives of persons significant in the area’s past.
- C. Embodiment of distinctive characteristics of a type, period, or method of construction, or representation of the work of a master, or possession of high artistic values, or representation of a significant distinguishable entity whose components may lack individual distinction.
- D. Has yielded, or may be likely to yield, information important in prehistory or history.



The cultural resources inventory for this corridor was conducted in compliance with federal guidelines, including Sections 106 and 110 of the NHPA, 36 CFR 800 and *Section 4(f)* of the U.S. Department of Transportation Act of 1966. In compliance with these laws and regulations, and specifically 36 CFR 800, professional cultural resource specialists conducted a survey to identify resources listed on or eligible for listing on the NRHP.

The cultural resources inventory examined approximately 80 sites for eligibility on the NRHP. Table 3.14 lists those properties or sites determined to be eligible or potentially eligible for listing on the NRHP and protection under *Section 4(f)* of the Transportation Act.

Table 3.14
NRHP Eligible Sites Within the Corridor

Property	Site #
Old Blackfeet Agency	24TT62
Spring Creek Stone Circles	24TT407
Dave's Overlook Stone Circle	24TT406
Freezout Lake WMA	24TT435
Great Northern Railroad	24TT409
Chicago, Milwaukee, St. Paul and Pacific Railroad	24TT408
Teton County Courthouse	24TT458
General Mills Grain Elevators	24TT448
Old Trail Museum Complex	24TT441, 24TT446, 24TT452
Metis House	24TT443
Town of Claude Dancehall	24TT437
Chadwick/Bryan Ranch	24TT440
Bynum Rock Shop	24TT424
Purketts Grocery and Post Office	24TT425
Bynum Irrigation District Office	24TT422
Perkins Sheep Ranch	24TT433
Jones Ranch Complex	24PN126

Source: Historical Research Associates, 2001

3.14 Hazardous Wastes

This section presents findings related to existing hazardous or regulated materials sites in the Study Corridor resulting from the initial site assessment (ISA) conducted in November 1999. These sites have the potential to impact construction of the project, depending on the type of facility, distance from the proposed construction in the Study Corridor, soil types, and surface elevation gradients.

Database Search

The EPA, CERCLA, RCRA, AIRS, RMP, PCS and TRIS databases were reviewed for locations within the vicinity of the project site that have hazardous materials or water quality issues. A search of the databases noted one site with a toxic release, one hazardous waste handler, one site permitted discharges to water, and one site that had a system risk management plan. No locations of hazardous materials, waste sites or toxic releases were identified in the examination of the DEQ CECRA and AML databases. Information was found from the DEQ Underground Storage Tank (UST) database identifying past and present USTs along the project corridor in Pondera and Teton Counties. Six sites identified on the UST list had releases or spills at one time.

Field Review

A field review was also conducted on November 15, 1999. The field review notes identified potential hazardous materials or water quality issues within the project site area:

- Areas of saline seep were visible along the Study Corridor, with the majority of saline seep in the area of Freezout Lake.
- A high water table exists in the area of Freezout Lake with numerous ponds visible immediately adjacent to the road. Water quality concerns due to sediment erosion and runoff will need to be addressed during construction.
- Old railroad ties were noted lying next to the current railroad tracks periodically from RP 28 to Choteau. Treated railroad timbers encountered during construction will require appropriate disposal.
- An abandoned pipeline crossed US 89 between RP 34 and RP 35.
- Gas pipeline crossings were noted near RP 38.
- Above ground fuel oil tanks/heaters were noted at residential properties in Choteau and Bynum.
- Old heating tanks and drums were visible at both abandoned and current homes along US 89 through the project site.
- Several industrial properties with above ground storage tanks were noted along US 89 in Choteau.
- A wood preserving post yard exists along US 89 just north of Choteau.
- Old tires were noted in several locations scattered and piled next to US 89.
- A feed lot is located between RP 48 and RP 49.
- Old railroad ties have been used as fencing material and are periodically scattered along the abandoned railroad bed north of Choteau. Treated railroad timbers encountered during construction will require appropriate disposal.
- Old railroad bed crossings exist with the abandoned piles and timbers still present.
- Numerous timber bridges and stock underpasses exist along the corridor. Treated timbers from these crossings will require appropriate disposal.
- Erosion control measures will need to be implemented when reconstructing bridges to maintain water quality.
- Roads off US 89 in the area south of Dupuyer serve as access and service roads to several active pumpjacks, tank stations and oil fields.

Table 3.15 lists the EPA-regulated facilities in the study corridor.

Table 3.15
EPA-Regulated Facilities in the Study Corridor

Facility Name	Contact Address	EPA Facility ID	Status
Bouma Post Yards	US 89, 2 miles NW of Choteau	MTD980952006	Toxic Release Reported
NL Baroid Choteau Service Center	3 rd St. NE Choteau, MT	MTT310010194	Hazardous Waste Handler
UAP Northwest, Fairfield	10 miles NW of Fairfield, MT	000008838558	System Risk Management Plan
Western States Industries	US 89 Choteau, MT	000008104044	Permitted Discharges to Water

Source: Hyalite Environmental, LLP: Attachment to ISA, November 15, 1999.

3.15 Visual Resources

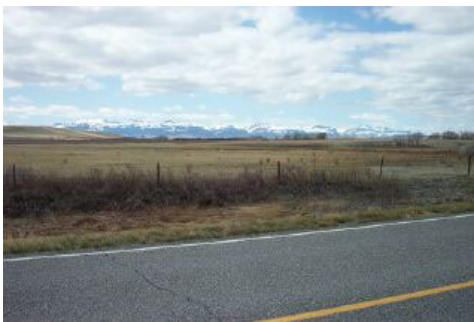
Visual characteristics in this section are identified for the highway driver and for viewer groups along the Study Corridor.

Existing Visual Characteristics

The US 89 alignment is generally level to rolling in a mostly rural and open agricultural and rangeland area. The highway maintains an elevation fluctuating between 1149 m (3,770 ft) to 1356 m (4,450 ft) above sea level. The terrain is mostly flat to gently rolling in the south and moderately rolling in the north. The section of US 89 between Fairfield and Choteau is characterized as the flat lake basin of Freezout Lake and Priest Butte Lake. Extensive wetlands are present in this area. The area between the towns of Choteau and Bynum is also relatively flat and is associated with the broad floodplain terraces of the Teton River and the smaller floodplains of Foster Creek and Muddy Creek. The area between Bynum, north to Dupuyer, is hilly and primarily used for rangeland.

The Rocky Mountains provide the dominant scenic backdrop in the western distance and may be considered one of the most striking visual characteristics along the relatively flat landscape. Aside from the small towns flanking the highway, the Rocky Mountain background could dwarf the scale of other viewed elements, and thereby reduce their visual significance. The extent of the highway and related highway elements in the view ahead make negative visual objects less intrusive into the quality of the Study Corridor views, resulting in the driver's positive visual perception of the area's character.

While the mountains could dominate views at different levels, the significance of other visual elements can change based on the alignment of the highway. These elements can provide a visual enclosure and scale for middle and foreground views. Where the mountain view is not visible, the 'view ahead' becomes focused primarily on the highway surface and the related highway elements. The width of the highway fills the middle and foreground viewshed. Vertical elements are often individually viewed through the duration of the sequence of distant views, middle ground views, and finally, foreground views. With the sparse population in this agricultural area, few screening or scale-reducing background elements exist to provide context and visual variety. The elements that do include the occasional small grove of trees, and reservoirs, ponds and wetlands along the road.



Views from Adjacent Land Use

Land adjacent to the highway is predominantly at the same elevation. Foreground views are dominated by the highway, and middle ground and distant views may be interrupted or obscured by highway elements, particularly vertical elements such as signs, lights and bridges over the drainageways and creeks. As with the views along the Study Corridor, the

extent of mountain backgrounds significantly influences the visual quality and character of areas viewed from these locations.

Notable Viewsheds

The speed of travel on US 89 limits the opportunity to clearly see the landscape by shortening the duration of any views of it. However, travelers through the corridor may notice any number of the following visual elements and views.

One of the most striking nearby visual elements is the Freezout Lake Wildlife Management Area and wetlands, which is bisected by the highway at the southern end of the corridor near Fairfield.

Traveling north from Fairfield, several buttes and hills are visible to the west, including Priest and Rattlesnake Buttes and Burd Hill and Spring Hill. To the east are the Black Buttes and Castle Rock.

All of the elements previously described provide a background or underpainting to the middle and foreground views of the US 89 Study Corridor, which contribute to and affect the visual experience of travelers.

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4.0 IMPACTS AND MITIGATION

This chapter describes the impacts and proposed mitigation measures of the proposed project on the existing social, economic, and environmental conditions in the Fairfield to Dupuyer study corridor. Chapter 3 serves as the baseline (existing conditions) for assessing impacts associated with the proposed reconstruction and realignment of US 89 in the study corridor.

For many of the areas of social, economic, and environmental concern, the various alternatives considered under the Build Alternative do not present quantifiable differences in impacts. In those instances, a general discussion of the impacts from the overall Build Alternative is presented. Where quantifiable differences can be demonstrated, a more detailed explanation of those impacts is presented.

4.1 Land Use Impacts

Land Use and Zoning

There are no anticipated impacts from the No-Build Alternative

Although no additional lanes are proposed in this corridor, the geometric improvements would still result in some additional capacity in the peak periods because of overall improvements in safety and operation of the facility. The minimal increase in capacity would not be of a magnitude to induce unplanned growth or development in the study area. The proposed project is not intended to induce growth, but instead to bring the condition of the road up to current standards in order to accommodate existing and planned growth, and encourage additional recreational use. Any increases in recreational use would not be anticipated to require a change in land use, but rather would be expected to maintain the current land uses geared toward recreational activity.

No mitigation is required.

Local and Regional Plans

There are no anticipated impacts from the No-Build Alternative.

The typical section and alignment alternatives are consistent with the goals generally outlined in the Local and Regional Plans, to “continue to improve highways within the county.”

No mitigation is required.

Public Lands, Parks, and Recreational Facilities

There are no anticipated impacts from the No-Build Alternative.

No acquisition of any *NL&WCF - Section 6(f)* properties will occur, and there will be no impacts by the proposed project’s Build Alternative(s).

The Freezout Lake WMA and Savik WPA are afforded protection under *Section 4(f)* of the Transportation Act of 1966.

The proposed project would reconstruct US 89 on or very near the existing centerline through the Freezout Lake WMA, and would not impact the WMA property. Side slopes will be steepened where necessary to contain the construction limits within the existing right-of-way, and to minimize any associated wetland impacts. The profile of the roadway is low enough that sideslopes would not likely need to be steeper than 4:1 to pull in construction limits and avoid any new right-of-way requirements and minimize wetland impacts.

According to the BRR, reconstruction of the existing alignment will have only temporary impacts to waterfowl utilizing the area. Thus the proposed roadway widening, and improvement of the parking areas, is anticipated to have a positive overall impact for the users of the WMA. Peak recreational use of the Freezout Lake WMA occurs during spring bird migrations and fall hunting season. Many bird watchers visit the Freezout Lake WMA to observe bird migrations between mid-March and late April. Fall hunting brings an even greater influx of visitors between the first of October and mid-November.

Bird watchers and hunters use several pull-offs for parking on the west side of US 89 in the stretch between the WMA field office and Eastham Junction. It is important to maintain access to these pull-offs to the extent practicable during peak usage times. There are a total of six pull-off areas between the field office and Eastham Junction. Maintenance of user access can be accomplished through appropriate detours. One such detour is a secondary highway that runs due north from near the Freezout Lake field office for approximately 4.8 km (3.0 mi) to the unincorporated settlement of Bole, then northwest, parallel to the north side of railroad tracks to Eastham Junction.

The proposed alignment in the vicinity of the Savik WPA is an offset alignment east of (away from) the WPA, therefore having no impact. MDT has also identified this area as a potential site for the inclusion of a wildlife viewing pullout, which would be constructed on the east side of the new alignment, thereby enhancing the use and enjoyment of this site.

No acquisition of any park, recreational, or wildlife/waterfowl refuge properties protected by *Section 4(f)* of the Department of Transportation Act of 1966 will be required, and there would be no constructive use or proximity impacts to either the Freezout Lake WMA or the Savik Waterfowl Production Area, thus *Section 4(f)* is not triggered.

The Teton-Spring Creek Bird Preserve would not be impacted by Alignment Alternative A, but would be bisected by either Alignment Alternative B or C. Although not protected under *Section 4(f)*, Alignment Alternative A is the preferred alignment through the Bird Preserve due to the minimization of impacts to this privately owned recreational resource.

No mitigation is required for parks and recreational facilities in this corridor.

Transportation Right-of-Way

The No-Build Alternative will require no new right-of-way.

The proposed reconstruction of US 89 includes several alignment alternatives that will require new right-of-way. An offset alignment is proposed through much of the corridor, which aids in the constructability of the new roadway, but also limits the right-of-way impacts to one side of the existing alignment. This reduces the number of parcels that must be negotiated, resulting in project cost savings.

With the exception of Freezout Lake WMA and the urban sections in Choteau and Bynum, new right-of-way will be required throughout the corridor. Current standards require 3.0 m (9.8 ft) of right of way beyond the construction limits. The anticipated right-of-way impacts from each of the typical section alternatives and alignment alternatives are summarized in Table 4.1.

Table 4.1
Right of Way Impacts

Location	Approximate Area(s) of Impact Within Project Area	
	Preferred Alternative Typical Section	Route Segment Plan Typical Section
<i>Fairfield to Choteau</i>	<i>10.8 m (36 ft)</i>	<i>9.6 m (32 ft)</i>
RP 28.5 to RP 42.1†	23.34 ha (57.68 ac)	19.74 ha (48.78 ac)
<i>Choteau to Dupuyer</i>	<i>10.8 m (36 ft)</i>	<i>8.4 m (28 ft)</i>
RP 42.1 to RP 45.5†	16.52 ha (40.82 ac)	14.54 ha (35.93 ac)
RP 45.5 to RP 50.0		
<i>Alignment Alt. A</i>	36.09 ha (89.18 ac)	31.41 ha (77.61 ac)
<i>Alignment Alt. B</i>	32.18 ha (79.51 ac)	28.00 ha (69.20 ac)
<i>Alignment Alt. C.</i>	34.98 ha (86.44 ac)	29.77 ha (73.56 ac)
RP 50.0 to RP 54.8†	22.90 ha (56.59 ac)	19.49 ha (48.16 ac)
RP 54.8 to RP 55.4		
<i>Alignment Alt. D*</i>	10.56 ha (26.10 ac)	9.08 ha (22.45 ac)
<i>Alignment Alt. E</i>	5.70 ha (14.09 ac)	4.90 ha (12.12 ac)
RP 55.4 to RP 60.0†	19.83 ha (49.00 ac)	16.88 ha (41.70 ac)
RP 60.00 to RP 65.0		
<i>Alignment Alt. F*</i>	47.99 ha (117.36 ac)	40.42 ha (99.87 ac)
<i>Alignment Alt. G</i>	33.51 ha (82.81 ac)	28.52 ha (70.47 ac)
<i>Alignment Alt. H</i>	29.29 ha (72.38 ac)	24.93 ha (61.60 ac)
RP 65.0 to RP 66.2		
<i>Alignment Alt. I</i>	12.32 ha (30.44 ac)	11.00 ha (27.18 ac)
RP 66.2 to RP 69.8		
<i>Alignment Alt. J*</i>	36.22 ha (89.50 ac)	32.83 ha (81.12 ac)
<i>Alignment Alt. K</i>	39.41 ha (97.38 ac)	35.30 ha (87.23 ac)
<i>Alignment Alt. L</i>	53.57 ha (132.37 ac)	47.36 ha (117.03 ac)
RP 69.8 to RP 73.0		
<i>Alignment Alt. M*</i>	22.35 ha (55.24 ac)	19.41 ha (47.98 ac)
<i>Alignment Alt. N</i>	20.78 ha (51.34 ac)	19.45 ha (48.07 ac)
RP 73.0 to RP 74.9†	14.84 ha (36.68 ac)	6.78 ha (16.76 ac)
Corridor Total	241.02 ha (595.58 ac)	216.48 ha (534.94 ac)

Source: BRW, Inc. (2002)

Notes:

Bold indicates Preferred Alignment Alternative impacts.

* indicates that the alternative has been eliminated from previous screening.

† indicates that reconstruction of these tangent sections involves an alignment generally 15.0 m (50.0 ft) offset from the existing centerline. No alignment alternatives are proposed between these RPs.

All lands required for the proposed improvements will be acquired in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*. Compensation for right-of-way acquisitions would be made at fair market value for the “highest and best use” of the land.

Temporary construction permits may also be required throughout the corridor, particularly where right-of-way is limited. These areas would be identified during final design and negotiated with individual property owners. These areas would be for temporary use during construction and would revert back to the property owner after construction.

There will be no conflicts with the BNSF line running parallel and east of the existing alignment in the southern portion of the corridor. MDT is proposing to utilize the abandoned railroad right-of-way wherever appropriate, north of Choteau.

Utility relocations would be coordinated with these lines’ owners and would be done before any construction. Notification of service interruptions due to these relocations would be the responsibility of these utility lines’ owners. Such disruptions are normally minor and are usually limited to the customers on the affected lines.

4.2 Farmland Impacts

The No-Build Alternative would have no impact on any of the Prime and Unique Farmlands or Farmlands of Statewide or Local Importance identified in the corridor.

None of the proposed improvements under the Build Alternative(s) would impact any of the Prime and Unique Farmlands or Farmlands of Statewide/Local Importance identified.

Any irrigation ditches impacted by any of the proposed improvements will be reconstructed. These impacts will be short term and temporary, and will be coordinated with the ditch owner.

No mitigation is required.

4.3 Social Impacts

Social considerations revolve around issues of access and impacts to public facilities, public safety, community cohesion, and environmental justice.

Community Characteristics and Population

The communities within the study corridor have been growing slowly, and many are anticipating that improvements to US 89 may spawn new interest in the area. For this reason, alternatives to bypass Choteau and Bynum have been eliminated due to their potential negative impacts to these communities. The proposed roadway improvements would have no affect on the community characteristics or trends. Residents within the corridor would continue to utilize US 89 to access goods, services, and employment and recreational

opportunities that are not readily available in their communities. This proposed project will not have any substantive impact on the location, distribution, density, or growth rate of the area's population.

No mitigation is required.

Community and Public Facilities

There are no anticipated impacts to the Community and Public Facilities as a result of the No-Build Alternative.

Under the proposed Build Alternative(s), no community or public facilities or services would experience negative impacts as a result of the proposed project, but they could experience enhanced accessibility due to the anticipated safety and operational improvements on US 89. School buses, fire, emergency, and law enforcement services would also benefit from increased travel efficiency.

No mitigation is required.

Environmental Justice

Title VI of the U.S. *Civil Rights Act* and E.O. 12898 require that no minority or, by extension, low-income persons shall be disproportionately impacted by any project receiving Federal funds. For transportation projects, this means no particular minority may be disproportionately isolated, displaced, or otherwise subjected to adverse effects. The corridor is largely rural, and the Build Alternative(s) will not cause any displacements, and will not affect the cohesion of any communities or divide any neighborhoods. Therefore, the proposed action will not adversely impact any ethnic, low income, or minority groups.

No mitigation is required.

4.4 Economic Impacts

The No-Build Alternative will have no impacts, positive or negative, on the economic conditions in the study corridor.

It is not anticipated that the proposed improvements to US 89 will have a dramatic or lasting economic impact on the area. During the construction phase of the project, there will be additional jobs and a greater demand for hotel and restaurant accommodations. There may be a small amount of additional traffic in the northern section of the corridor where the horizontal and vertical curves will be greatly improved.

Part of the stated purpose for the proposed project is to provide enhancements for recreational users. An expected outcome may be growth in tourism-related services and facilities; however, the population and employment trends for Teton and Pondera Counties are fairly flat and lag substantially behind the statewide average. In reality, the proposed

project is more likely to result in the accommodation of the natural increase in tourism-related traffic, and may help prevent traffic from shifting to other routes such as I-15. Overall, there would be little or no net effect to the local or regional economies from this proposed project.

No mitigation is required.

4.5 Pedestrian and Bicycle Facility Impacts

The No-Build Alternative would provide no improvements to the current system.

The 10.8 m (36 ft) typical section alternative was developed to provide the AASHTO-recommended clear path for bicycle use. While the typical section(s) identified in the Route Segment Plan provide adequate shoulder width to accommodate bicyclists, the 10.8 m (36 ft) roadway would provide a more user-friendly facility for bicyclists and motorists alike. For this reason, the 10.8 m (36 ft) typical section width is the Preferred Alternative throughout the corridor.

The Preferred Alternative also includes the extension of sidewalk facilities on the north end of Choteau. This would provide continuous 1.5 m (5 ft) sidewalks from the courthouse north to approximately 10th Street NW.

The provision of pedestrian and bicycle facilities is unaffected by any of the alignment alternatives.

No mitigation is required.

4.6 Air Quality Impacts

This proposed project is located in an unclassifiable/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's "Final Rule" of September 15, 1997 on Air Quality conformity. Therefore, both the "No Build" and the "Build" alternative(s) comply with Section 176(c) of the Clean Air Act (**42 U.S.C. 7521(a)**), as amended.

No mitigation is required.

4.7 Noise Impacts

According to the Federal Aid Policy Guide, "*Procedures for Abatement of Highway Traffic Noise and Construction Noise*" (23 CFR 772), the project is classified as a Type I project; noted as a "proposed Federal or Federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes."

As identified in Chapter 3, most noise sensitive receptors along the study corridor fall under Category B, which include residences, parks, recreation areas, medical facilities, churches, and hotels/motels. The exterior noise abatement criteria described in Chapter 3 apply to outdoor areas that have regular human use and where a lowered noise level would benefit the public. These criteria do not apply to the entire tracts surrounding an activity, but only to those portions on which activity normally occurs, for example, an outdoor patio or stationary recreational equipment.

MDT identifies noise impacts as occurring when noise levels come within one decibel of the noise abatement criteria of 67 dBA for Category B sites, or when noise levels increase 13 decibels over existing levels. A level of 66 dBA is normally used to indicate an impacted receiver.

Existing and design year 2020 noise levels were predicted for 37 receivers along the project corridor for all alternatives. These sites are representative of the potential residential receivers along the project corridor (including lots) and are not meant to be all-inclusive.

No-Build Alternative

The No-Build Alternative would not cause additional noise impacts.

Build Alternatives

Typical Sections

The proposed improvements do not provide additional travel lanes, thus the typical section width is not a substantive factor in determining noise impacts.

Alignment Alternatives

The impacts that result to each of the receivers from the Preferred Alternative are outlined in Table 4.2.

Compared to existing conditions, noise levels would not increase more than 13 dBA for any of the receivers along the existing alignment under any alternative. Only one receiver along the existing alignment is projected to experience future noise impacts under the Preferred Alternative. The noise level at the residence at approximately RP 39.2 is expected to be 66 dBA, which is within 1 dBA of the NAC of 67 dBA and is considered a noise impact.

In the Spring Creek area, there are noise receptors along Alignment Alternatives A, B, and C. The noise receptors along Alignment Alternative A are identified in Table 4.2 (R46-1W and R47-4W) and would not experience any noise impacts. Alignment Alternative B has two noise receptors, and one residence would experience a noise increase of 15 dBA over the estimated existing level. Alignment Alternative C also has two noise receptors, and one receptor would experience an increase of 14 dBA over the estimated existing noise level. For these reasons, Alignment Alternative A is the preferred alternative in the Spring Creek area.

There are no other noise impacts anticipated with any of the other alignment alternatives throughout the corridor.

Table 4.2
Calculated Existing and 2023 Noise Levels in dBA Leq(h)

Receiver	Approximate Reference Post	Existing (1999)	2023 No-Build	2023 Preferred Alternative	Difference between 1999 and 2023	Impact in 2023?
PA28-6W	RP 28.6	54	55	54	0	No
R39-1W	RP 39.1	55	57	54	-1	No
R39-2E	RP 39.2	61	63	66	5	Yes
R39-2W	RP 39.2	55	56	54	-1	No
R39-6W	RP 39.6	59	60	57	-2	No
R40-0E	RP 40.0	53	54	56	3	No
R40-1E	RP40.1	52	53	55	3	No
R40.3W	RP 40.3	60	61	59	-1	No
R43-4W	RP 43.4	52	53	51	-1	No
R43-5W	RP 43.5	49	50	49	0	No
R43.7E	RP 43.7	54	55	62	8	No
R43-8W	RP 43.8	54	55	53	-1	No
R44-1W	RP 44.1	52	53	51	-1	No
R44-2W	RP 44.2	61	62	58	-2	No
R44-6W	RP 44.6	53	54	52	-1	No
R45-0W	RP 45.0	62	63	55	-7	No
R45-5W	RP 45.5	52	53	50	-2	No
R46-1W	RP 46.1	61	62	58	-3	No
R47-4W	RP 47.4	51	52	50	-1	No
R66-4E	RP 66.4	47	48	49	2	No

Source: *Traffic Noise Study*, Big Sky Acoustics (February 15, 2002)

Mitigation

Noise mitigation was considered for the impacted receiver noted above. Potential noise mitigation measures for highways include creating buffer zones, constructing berms or walls, planting vegetation, soundproofing buildings, and managing traffic. The creation of buffer zones and the planting of vegetation both require relatively large amounts of land. As much as 300 m (1,000 ft) of buffer would be required along both sides of US 89 to ensure that no receptors experience noise levels in excess of 65 dBA. Approximately 30 m (100 ft) of dense vegetation would be required between the highway and receptors to provide a noticeable noise reduction. Vacating this much area along the corridor would be cost-prohibitive and would not likely be in the best interest of area residents.

Soundproofing is typically limited to public buildings, such as schools and libraries, and is not considered applicable to any receptors on this project. Traffic management measures, such as limiting truck traffic and lowering speeds can be used to reduce noise from highways. Such measures, however, have limited benefit and often create safety and other problems.

Given the above limitations, noise walls or berms are the most viable option for this corridor; however, the effectiveness of this technique is generally limited to areas where a long continuous wall or berm can be constructed for several impacted receptors. Frequent breaks in the wall for driveways or field approaches limit their effectiveness, and it is seldom cost effective to construct noise mitigation for an isolated residence or affected land use.

No noise mitigation is proposed for this project.

4.8 Water Quality Impacts

It is not anticipated that water quality will be impacted by the No-Build Alternative.

Impacts to water quality would not vary between any of the potential Build Alternative(s). Impacts to drainages from the Preferred Alternative will primarily result from bridge and culvert removal and construction. Instream work associated with construction could result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity downstream of the project area.

Road maintenance activities can impact water quality. Regular maintenance activities include the application of herbicides, mowing, and winter maintenance such as snowplowing and the application of sand and deicing salts. Unscheduled maintenance activities can include hazardous materials spills from accidents, and debris removal from slumps and landslides. These maintenance activities have the potential to result in the introduction of sediment, materials, and chemicals into streams and wetlands.

The Proposed Action reduces the amount of shaded area along the corridor, and thereby could reduce snow drifting, icing, and sanding requirements. MDT's current maintenance practices have been developed in consideration of these potential impacts to water quality.

Debris disposal from slumps and landslides are not a concern because these occurrences are minimal or non-existent in this portion of the US 89 corridor. Large animal road kill are removed to appropriate offsite disposal areas. For roadway accidents involving hazardous materials, quick response teams from state agencies and private entities are used to prevent and mitigate potential impacts. Fine material from winter sanding operations are picked up from roadway ditches where possible. For sanding operations near streams and over bridges, the present practice is to use motorized "pickup" brooms to remove sand. In addition, grass growth and proper mowing practices and mowing height are promoted to provide vegetation buffers between the roadway and waterbodies. Winter sanding material and rock debris is recovered and stockpiled for use as fill or rip rap material, or this material is disposed of offsite, away from streams and wetland areas.

BMP's are used for erosion control. Any major landslide occurrences or erosion near waterbodies are repaired using an engineered design. These maintenance activities are treated as individual projects and are subject to the NEPA/MEPA process, the Clean Water Act, and state permitting requirements.

In terms of the use of chemical additives for deicing and herbicides, MDT's Maintenance Division is on the "cutting edge" of studies concerning proper chemical dilution rates to prevent damage to wildlife habitat, including Threatened and Endangered aquatic species. The results of these studies are to be included as standards or guidelines from AASHTO.

In addition, MDT recently developed BMP's for winter maintenance operations for Montana, which will be in use for this project.

Mitigation

If the project is approved, encroachments into watercourses will be avoided or minimized to the extent possible. MDT will re-establish a permanent desirable vegetation community over all landform surface areas disturbed by construction of this project. This action will be in accordance with M.C.A. 7-22-2152 and 60-2-208, and MDT will develop a set of revegetation guidelines that must be followed by the contractor. These specifications will include instructions on seeding methods, dates, mix components, and the types and amounts of mulch and fertilizer. Seed mixes will include a variety of species to ensure that areas disturbed by construction will be stabilized with vegetative cover. The special seeding provisions developed for this project will be forwarded to the Pondera and Teton county offices for approval.

Control will be exercised during construction through the use of erosion and sediment control features, such as fiber mats, catch basins, silt fences, and sediment barriers to prevent any material or excavation from falling into any watercourses. If any material does enter a watercourse, it will be removed in coordination with state and federal water quality agencies.

If the project is approved, a Stormwater Pollution Prevention Plan (SWPPP) for the proposed alignment will be submitted to the MDEQ's Permitting and Compliance Division in compliance with the Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314). BMP's will be used in the design of this plan, based on guidelines being developed by MDT. The objective is to minimize erosion and sedimentation during and following construction of this proposed project. Examples of erosion control include mulching, temporary or permanent revegetation, surface roughening, and covering road and soil stockpiles. Methods of sedimentation control include vehicle tracking control, slope-length control, and sediment entrapment facilities. The MDEQ Permitting and Compliance Division will also evaluate waterbodies listed on the applicable 303(d) List for TMDL compliance.

Culverts and bridges will be designed to accommodate flood flows with no substantial changes in flood elevations. Culverts will be designed to match the hydraulic traits (depth, velocity, and patterns) of natural streams. During the permitting process, culvert and bridge design will be coordinated with appropriate resource and permitting agencies.

4.9 Wetland Impacts

The No-Build Alternative would have no impact on the existing wetlands.

Table 4.3 outlines the anticipated impacts from the Build Alternative(s). The table provides a summary of impacts from the preferred 10.8 m (36 ft) typical section and the typical sections included in the Route Segment Plan. The Route Segment Plan typical section impacts were calculated using the Preferred Alignment Alternatives. Total impacts to delineated wetland areas along the preferred alignment are 12.24ha (30.22± ac). Based on the current design, 3.31 ha (8.18± ac) of Category I, 0.77 ha (1.90± ac) of Category II, 7.96 ha (19.67± ac) of Category III, and 0.20 ha (0.49± ac) of Category IV wetlands would be impacted. The

majority of impacts would occur south of Choteau, and in sections just south and north of Bynum.

Table 4.3
Typical Section and Alignment Alternative Impacts to Wetlands

Location	Total approximate wetland area within 152.4 m (500.0 ft) of the existing roadway centerline	Approximate Area(s) of Impact within project area	
		Preferred Alternative Typical Section	Route Segment Plan Typical Section
<i>Fairfield to Choteau</i>		10.8 m (36 ft)	9.6 m (32 ft)
RP 29.50 to RP 45.8‡	145.22 ha (358.85 ac)	6.83 ha (16.87 ac) ¹	5.8 ha (14.3 ac)
<i>Choteau to Dupuyer</i>		10.8 m (36 ft)	8.4 m (28 ft)
RP 45.80 to RP 50.0	53.24 ha (131.55 ac)		
Alignment Alt. A		0.30 ha (0.74 ac)	0.27 ha (0.67 ac)
Alignment Alt. B		2.07 ha (5.11 ac)	1.95 ha (4.82 ac)
Alignment Alt. C.		2.37 ha (5.86 ac)	2.05 ha (5.07 ac)
RP 50.0 to RP 54.8‡	9.50 ha (23.49 ac)	0.54 ha (1.33 ac) ¹	0.49 ha (1.21 ac)
RP 54.8 to RP 55.4	6.57 ha (16.23 ac)		
Alignment Alt. D*		1.73 ha (4.27 ac)	1.67 ha (4.13 ac)
Alignment Alt. E		0.76 ha (1.88 ac)	0.70 ha (1.73 ac)
RP 55.4 to RP 60.0‡	6.33 ha (15.64 ac)	0.78 ha (1.93 ac) ¹	0.73 ha (1.80 ac)
RP 60.00 to RP 64.5	10.10 ha (24.97 ac)		
Alignment Alt. F*		0.30 ha (0.74 ac)	0.27 ha (0.67 ac)
Alignment Alt. G		0.20 ha (0.49 ac)	0.06 ha (0.15 ac)
Alignment Alt. H		1.07 ha (2.64 ac)	0.85 ha (2.10 ac)
RP 64.5 to RP 66.0	1.30 ha (3.21 ac)		
Alignment Alt. I		0.22 ha (0.54 ac)	0.22 ha (0.54 ac)
RP 66.0 to RP 69.5	1.87 ha (4.62 ac)		
Alignment Alt. J*		1.04 ha (2.57 ac)	0.83 ha (2.05 ac)
Alignment Alt. K		0.34 ha (0.83 ac)	0.14 ha (0.35 ac)
Alignment Alt. L		0.65 ha (1.62 ac)	0.21 ha (0.52 ac)
RP 69.5 to RP 73.0	15.51 ha (38.33 ac)		
Alignment Alt. M*		0.96 ha (2.37 ac)	0.82 ha (2.03 ac)
Alignment Alt. N		1.24 ha (3.06 ac)	1.19 ha (2.94 ac)
RP 73.0 to RP 74.9‡	1.67 ha (4.13 ac)	0.16 ha (0.40 ac) ¹	0.14 ha (0.35 ac)
Corridor Total	251.31 ha (621.00 ac)	12.24 ha (30.22 ac)	10.60 ha (26.16 ac)

Source: *Biological Resources Report*, BRW, Inc. (2002)

Notes: **Bold** indicates Preferred Alternative impacts.

* indicates that the alternative has been eliminated from previous screening.

† indicates that reconstruction of these tangent sections involves an alignment generally 15.0 m (50.0 ft) offset from the existing centerline. No alignment alternatives are proposed between these MP/RPs.

As demonstrated in the table above, the Preferred Alternative consists of those alignment alternatives with the least wetland impacts except in the case of Alignment Alternative H. In this area, only Category III wetlands would be impacted, and those impacts do not outweigh the substantial costs and impacts to farmlands associated with Alignment Alternative G. Efforts have been made to avoid and/or minimize impacts to Category I and II wetlands throughout the corridor by reducing the construction limits from the standard 6:1 to 4:1 fill slopes.

Impacts to wetland areas through Freezout Lake were avoided and/or minimized by maintaining the proposed alignment on the existing roadway centerline, or immediately adjacent to the existing roadway centerline where feasible. While some impacts to wetlands associated with Freezout Lake are unavoidable, these impacts are entirely within current MDT right-of-way and do not constitute an impact to the WMA property itself.

Avoidance of all identified wetland areas in the project corridor was deemed not practicable based on several factors, including the need to design the proposed project to current state and federal standards. Opportunities to avoid and minimize impacts within the proposed project corridor were investigated in detail during the preliminary road design analysis for the proposed project. Wetland impacts will be avoided and minimized by designing the preferred alignment alternative on or adjacent to the existing roadway centerline, with only necessary adjustments of the horizontal alignment in areas requiring modifications to meet current design standards. Category I wetlands were avoided during the design of Alternative Alignment A (i.e., the Preferred Alignment) by shifting the proposed alignment to avoid impacts to wetlands 45.80 R and 46.00 L. Design measures proposed to minimize wetland impacts to all Category I and II wetland areas in the project corridor include reducing the proposed construction limits from the standard 6:1 slope to 4:1 slopes. At Freezout Lake WMA, wetland impacts will be avoided and minimized by maintaining the existing centerline alignment or slightly shifting the horizontal alignment of the proposed roadway to the east if warranted, as requested by MFWP, to reduce the placement of fill material in wetland areas located on the west side of US 89. Wetland impacts will be further minimized adjacent to the Freezout Lake WMA by reducing the construction limits from 6:1 to 4:1 slopes on both sides of the proposed roadway throughout the portion of the corridor encompassing the Freezout Lake WMA. The reduction of the fill slopes from the standard 6:1 to 4:1 at the seven Category I and II wetland areas in the project corridor resulted in minimizing wetland impacts by 1.74 ha (4.30 ac).

Mitigation opportunities to compensate for potential wetland impacts resulting from the proposed project are currently being discussed and developed with the Freezout Lake WMA managers. The northeast portion of the Freezout Lake WMA, east of US 89 in Township 23 North, Range 3 West, Section 31, is an option for wetland development and/or enhancement sites. On the north end of Freezout Lake WMA, there is available water sufficient to support a system of level ditches designed to act primarily as waterfowl pairing and nesting habitat. Another option, although less desirable than the Freezout Lake WMA, is the periphery of the Savik WPA west of US 89 along the Foster Creek drainage. According to the BRR, potential mitigation opportunities exist to restore and/or enhance areas of stream habitat along the Teton River west of the project area, if this type of compensatory mitigation is deemed satisfactory mitigation for the proposed wetland impacts.

4.10 Water Body Modifications and Wildlife Resource Impacts

The water bodies and wildlife resources would not be impacted as a result of the No-Build Alternative.

Wildlife resource impacts are not expected to differ depending on the typical section or alignment alternative chosen. Impacts to the various water bodies will differ when an alternative alignment causes a new crossing.

Water Bodies

Impacts to drainages in the project area will primarily result from bridge and culvert removal and replacement. Instream work associated with construction could result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity downstream of the project area.

Aquatic Resources

Turbidity affects fish both directly and indirectly. Elevated turbidity can decrease the ability of fish to locate and obtain food and conversely reduce the risk of predation from bird and mammals. Extremely high levels of turbidity can cause physiological problems for fish, especially if organic material is a large fraction of the material causing turbidity. High turbidity may also indicate high sediment transport rates. The latter may reduce primary and secondary production in streams and therefore food availability for fish. High sediment transport rates may also alter habitat, perhaps changing the quality of living space for juvenile and adult fish or decreasing spawning success for species that deposit eggs in or on the substrate.

Noxious Weeds

If the project is approved, appropriate measures will be taken to prevent the spread of noxious weeds. It is recommended that occurrences of noxious weeds be spot sprayed with an appropriate broad-leaf killing herbicide in all areas proposed as staging areas and where earth-moving activities will occur. This will reduce the likelihood of noxious weed infestations during and immediately after construction.

MDT will reestablish a permanent vegetation community in disturbed areas and will develop revegetation guidelines that the contractor must follow. MDT standard specifications for roadside revegetation will be followed. All seed mixes should be certified weed free. Rapid re-seeding of disturbed areas with native mixes will help to prevent the establishment of early successional species.

Wildlife

Impacts to wildlife would be limited to areas along the existing alignment and areas where new alignments are proposed. Existing human activity associated with US 89, such as farming, grazing and residential uses has already created pressure on the natural environment adjacent to the highway. Habitat adjacent to the highway is generally of low to moderate quality for wildlife species. The highest quality wildlife habitat includes the wetland and riparian areas associated with Freezout Lake WMA, Teton – Spring Creek Bird Preserve, Savik WPA, and the major drainages along the corridor.

Widening the highway to include shoulders would not greatly impact wildlife species in the area. Impacts to common wildlife species would likely be insignificant based on the abundance of similar habitats in the vicinity of the project area. Big game mammals such as Mule Deer and White-tailed Deer can avoid construction by moving into adjacent habitats. Mortality of small mammals, such as small rodents and other burrowing animals is a possibility with the construction of shoulders and new alignments. It is also expected that reptile and amphibian species occupying riparian areas would be directly impacted where construction activities are planned. Direct mortality is expected in these cases.

Expected increased speeds and traffic volumes have the potential to increase wildlife/vehicle conflicts. However, the existing alignment has a number of sharp curves, with associated poor sight stopping distance, and the proposed new alignment will improve vertical and horizontal sight lines which will allow drivers to see approaching wildlife from a greater distance.

Impacts to bird species in the area would likely occur in riparian areas along the waterways and wetlands in the project area. Construction associated with culvert replacement and bridge construction and removal could impact birds nesting in the shrub and herbaceous vegetation. Shrubs and herbaceous vegetation commonly found in riparian areas provide nesting habitat and cover for waterfowl. The removal of bridges and culverts in the project corridor could potentially impact swallow nesting which typically occurs from approximately May 1 to August 1. The removal of vacant nests outside of the nesting season will have no effect on swallows as abundant nesting habitat exists in the study area. Replacement of bridges and culverts would impact active nests during the nesting season.

Species of Concern

According to the BRR, there should be little overall impact to bird species of concern. Nesting for the majority of bird species that use Freezout Lake WMA occurs primarily in the Main Lake south of Pond 6, and in and around the alkali flats of the Main Lake. Based on the distance the above mentioned species nest from US 89, and the minor improvements proposed for the portion of US 89 through Freezout Lake WMA, the proposed project is not anticipated to adversely impact bird species of concern. The portion of US 89 through Freezout Lake WMA will generally remain on its current alignment, resulting in minimal impacts to habitats utilized by bird species of concern.

Mitigation

Given the large number of bird species utilizing habitats or nesting in the Freezout Lake WMA, and the fact that the Black Tern nests within 61.0 m (200.0± ft) of the existing US 89 alignment, the following mitigation/coordination measures are required:

- To prevent disturbance to nesting Black Tern and other bird species along US 89 at Freezout Lake WMA, all construction activities will be postponed from May 1 to August 1 between RP 30.4 and 32.4 if nesting Black Tern are present within the construction limits.

- Gravel sources and batching areas will be placed outside of the Freezout Lake WMA and away from known nesting areas, specifically the area between Ponds 2 and 3, and the levee to the southwest where the Black Tern is known to nest.

A qualified biologist will check the existing bridges, culverts, and irrigation pipes along the project corridor prior to construction to determine the status of any swallow nests. If swallow nests are present, one of the following will occur:

- the bridge or culvert will be removed outside of the nesting season (sometime between September and early April); **or**
- prior to, or after nesting, all nests will be removed (sometime between September and early April) and meshing will be placed around the structure(s) to prevent nesting.

4.11 Floodplain Impacts

No-Build Alternative

Under the No-Build Alternative, transverse and longitudinal encroachments to the floodplains associated with the Teton River, Spring Creek, and Muddy Creek would remain. Documented flooding problems in Choteau associated with the Teton River and Spring Creek floodplains will continue.

Build Alternatives

Typical Sections

Three designated floodplains would be encroached transversely under any of the alignment alternatives, and longitudinal impacts would be experienced with only three alignment alternatives. The transverse encroachments are located at existing creek and river crossings, and the longitudinal encroachments are along the existing railroad embankment. The floodplain encroachments are as follows:

Teton River – South of Choteau, US 89 crosses the designated Teton River floodplain transversely at RP 39.2. North of Choteau, the US 89 embankment forms the eastern boundary of the floodplain for approximately 4.0 km (3.0 mi).

Spring Creek – The designated Spring Creek floodplain is located north of Choteau and is crossed by the existing US 89 alignment at approximately RP 65.2. This area is impacted by the existing alignment, and an impact from this project would be unavoidable. South of this existing transverse encroachment, the Spring Creek floodplain generally lies parallel to US 89 to the east through the City of Choteau. High water flows from the Teton River cross over US 89 at Teton Pass Road, contributing to the Spring Creek floodplain flow.

Muddy Creek – The designated Muddy Creek floodplain is transversely encroached at RP 55.8. This area is impacted by the existing alignment, and an impact from this project would be unavoidable.

Alignment Alternatives

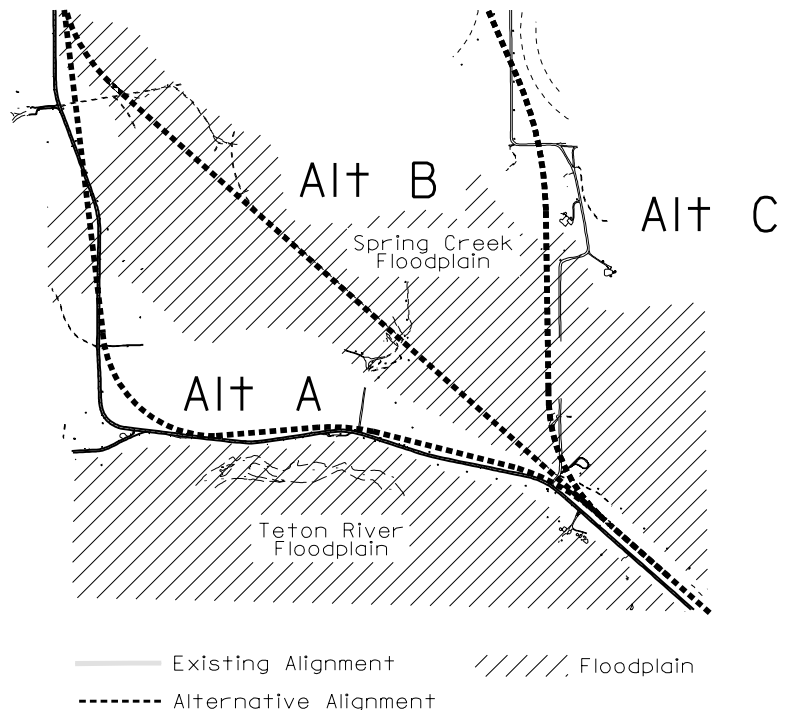
Alignment Alternative A is adjacent to the Teton River Floodplain and Alternatives B and C lie within the Spring Creek Floodplain. Each alignment alternative follows an existing longitudinal roadway or railroad embankment and requires an embankment expansion for the new roadway that would result in additional encroachment into the floodplain. The alternative alignments with respect to the Teton River and Spring Creek Floodplains are presented in Figure 4-1.

Alignment Alternative A is on or east of the existing US 89 embankment, and outside the Teton River Floodplain. Alternative A requires the least amount of embankment widening but would still result in a longitudinal encroachment of the Spring Creek floodplain. This alternative also includes a minimum amount of transverse encroachment across the Spring Creek floodplain, where the existing alignment already crosses.

Alignment Alternative B follows along the abandoned railroad embankment through a portion of the Spring Creek floodplain until the rail line curves north. Alternative B continues to the northwest on a newly constructed embankment which would result in an extensive longitudinal encroachment through the Spring Creek floodplain and requires the most embankment expansion.

Alignment Alternative C turns to the north from US 89 to follow the existing county road and the upper portion of the rail line through the floodplain. The alternative crosses the full width of the Spring Creek Floodplain at a transverse angle. Currently, the existing county road is overtopped during flood conditions. However, the new roadway in this area would be raised and a bridge or culvert conveyance structure would be installed to prevent roadway overtopping. Alternative C would cut off the flow in the floodplain and result in a substantial transverse impact.

Figure 4-1
Floodplains on the north side of Choteau



The Preferred Alternative further north in the corridor crosses the Muddy Creek floodplain north of Bynum. This is a transverse encroachment at or near the existing crossing and would not create an additional crossing or encroachment.

The transverse encroachments under the Preferred Alternative would not adversely impact the floodplains, where bridges and culverts are required, provided that the structures are sized such that the increase in water surface elevation from the base flood elevation is 0.15 m (0.5 ft) or less. There are no longitudinal impacts to the Teton River floodplain as the proposed alignment is shifted east of and away from the designated floodplain. This shift to the east is encompassed within the existing US 89 embankment and the abandoned railroad embankment, however this shift still constitutes a longitudinal encroachment of the Spring Creek floodplain. This encroachment does not affect the carrying capacity of the river, and does not increase the flood risk. Based on an evaluation pursuant to the criteria established under 23 CFR 650.111, this impact is not considered “significant.”

Mitigation

A hydraulic analysis, prepared in accordance with the rules and regulations of FEMA and MDT, will be required for final design to determine if the resulting water surface elevations are acceptable and to demonstrate that the flood waters within the project area will not provide any additional impacts the adjacent land owners and structures. The analysis will specify bridge and culvert sizes, scour and erosion protection, and applicable flood proofing measures.

A floodplain development permit will be required from the Teton County Floodplain Administrator.

4.12 Threatened and Endangered Species Impacts

Early coordination with USFWS and MFWP determined that formal *Section 7* consultation under the *Endangered Species Act* was not required.

No-Build Alternative

The No-Build Alternative would not impact the Threatened and Endangered Species or species of concern in the corridor.

Build Alternatives

Typical Sections

It is not anticipated that the varying width of the typical section alternatives will impact the Threatened and Endangered Species in the corridor.

Alignment Alternatives

The threatened and endangered species impacts will not differ from alternative to alternative. Table 4.4 below provides a summary of the determination of effect on the threatened and endangered species that could potentially occur in the project area.

Table 4.4
Impacts to Federally Listed Species

Common Name	Scientific Name	Status	Determination of Effect
Grizzly Bear	<i>Ursus arctos horribilis</i>	Threatened	May Affect, Is Not Likely To Adversely Affect
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened	No Effect
Mountain Plover	<i>Charadrius montanus</i>	Proposed Threatened	No Effect
Canada Lynx	<i>Lynx canadensis</i>	Threatened	No Effect
Gray Wolf	<i>Canis lupus</i>	Endangered	No Effect
Montana Arctic Grayling	<i>Thymallus arcticus montanus</i>	Candidate	No Effect

Source: *Biological Resources Report*, BRW, Inc. (2002)

Grizzly Bear (Threatened). According to the BRR, there are known occurrences of Grizzly Bear using the project area for foraging from April through June, and September through October. Therefore, construction activities along US 89 could alter the seasonal foraging movements of the Grizzly Bear. Effects resulting from construction activities may have the potential to cause a short-term disruption of Grizzly Bear seasonal movements. Such movement restrictions are equivalent to habitat loss. Habitat loss limits nutritional resources available to Grizzly Bears to some extent, and may in turn limit fecundity of female Grizzly.

The presence of refuse associated with road construction crews increases the potential for bear-human conflicts. Efficient waste collection should be maintained so that Grizzly Bears do not become conditioned to foraging near human habitation. Such feeding habits may pose an indirect risk to the Grizzly Bear as a result of increased potential for traffic collisions or poaching. Research on Grizzly Bear-human interactions in Alaska's Denali National Park suggests Grizzly Bears are more likely to approach people in developed areas than they are to approach people in wilderness areas. With proper garbage disposal, the potential for these conflicts can be minimized.

Based on the above information and implementation of the mitigation/coordination measures outlined below, it is determined that the proposed action **may affect, is not likely to adversely affect** the Grizzly Bear.

Bald Eagle (Threatened). According to the BRR, bald eagles have been observed migrating through the study area in the spring and fall; however, no nests are currently known within the study area. The bald eagle nest nearest to the study area is located close to the town of Simms, approximately 10 km (6± mi.) south of the southern terminus of the study area.

Because there are no known occurrences of the Bald Eagle within the project area, it is determined that the proposed reconstruction of US 89 will have **no effect** on the Bald Eagle.

Mountain Plover (Proposed Threatened). According to the BRR, the project area is likely too wet and too far west for the mountain plover. Absence of prairie dog colonies is also a likely reason why there are no known occurrences of the mountain plover in the general vicinity of the project area.

Because there are no known occurrences of the Mountain Plover in the project area, it is determined that the proposed reconstruction of US 89 will have **no effect** on the Mountain Plover.

Canada Lynx (Threatened). According to the BRR, the study area is not considered to be within prime lynx habitat, nor is it considered to be a major travel corridor. Although lynx will use drainages as travel corridors, it is unlikely that lynx would travel east from the foothills to the prairie, crossing the study corridor.

Because there are no known occurrences of the Canada Lynx in the project area, it is determined that the proposed reconstruction of US 89 will have **no effect** on the Lynx.

Gray Wolf (Endangered). Based on the BRR, no active wolf dens or wolf pack activity are known to occur in the project area. The project area is considered to be too far east to impact Gray Wolf activity since the closest wolf pack activity to the project area is approximately 40.0 km (25.0 mi) southwest of Choteau near Gibson Reservoir.

Based on the absence of Gray Wolf activity near the project area, it is determined that the proposed project will have **no effect** on the Gray Wolf.

Montana Arctic Grayling (Candidate). The Montana Arctic Grayling is known to occur in the Sun River Slope Canal and Pishkun Reservoir west of the project area. Based on 1 confirmed occurrence record of Montana Arctic Grayling in Priest Butte Lakes, it is speculated that some Montana Arctic Grayling from Pishkun Reservoir, Pishkun Canal, and Sun River Slope Canal systems eventually end up in the Greenfield irrigation system that supplies water to Freezout Lake and Priest Butte Lakes. Montana Arctic Grayling are not suspected or known to be present in the other waterbodies in the project area.

Based on the limited presence and distribution of Montana Arctic Grayling in the project area, and the fact that this proposed project will not involve any work associated with the abovementioned irrigation systems, it is determined that the proposed project will have **no effect** on the Montana Arctic Grayling.

Mitigation

The following mitigation/coordination measures are required to minimize impacts to the Grizzly Bear:

- Construction activities will not be allowed from April 15 to May 31 within a one mile radius of all major drainages including the Teton River, Spring Creek, Foster Creek, Muddy Creek, Jones Creek, Farmers Coulee, Spring Creek (2), South Fork Dry Fork Marias River, Jensen Coulee, Middle Fork Dry Fork Marias River, and Matchett Coulee.
- New bridge structures of equal or greater length, particularly at Teton River, Foster Creek, and Muddy Creek, will be considered in the interest of perpetuating the

- configuration of the stream and associated riparian and wetland habitats that are known to be used as Grizzly Bear travel corridors.
- Proper daily waste removal from all staging areas and road crew quarters would minimize bear-human conflict. Garbage will be properly disposed of in Grizzly Bear-proofed containers and will be removed daily. Any spills or litter will be cleaned up immediately, and possible attractants (such as antifreeze and petroleum products) will be properly stored so as not to attract Grizzly Bears.
 - Vegetation clearing within the right-of-way of US 89 will be kept to a minimum in the major riparian drainages (Teton River, Muddy Creek, and Foster Creek) to maintain cover for Grizzly Bears.

If powerlines in the project area are not properly constructed, they could pose electrocution hazards for migration Bald Eagles. To protect these large raptors, any powerlines that are modified or reconstructed as a result of the project will be raptor-proofed in accordance with *MDT Memorandum #208*.

4.13 Historic, Archeological, and Paleontological Resource Impacts

No-Build Alternative

It is not anticipated that the No-Build Alternative will have any effect on the historic, archeological, or paleontological resources within the corridor.

Build Alternative

Typical Sections

It is not anticipated that the varying width of the typical section alternatives will impact the historic, archeological, and paleontological resources in the corridor.

Alignment Alternatives

Only alignment alternatives A, B, and C have the potential to impact historic, archeological, and paleontological resources.

- Alignment Alternative A shifts the alignment slightly closer to site 24TT406 (Dave's Overlook Stone Circle), but the site will remain undisturbed.
- Alignment Alternative B has the potential to impact the historic Chadwick/Bryan Ranch by locating the new alignment immediately behind the complex of structures dating back to the origination of the working ranch.
- Alignment Alternative C could impact site 24TT407 (Spring Creek Stone Circles) by bisecting this area.

For these reasons, Alignment Alternative A is the Preferred Alternative in this portion of the corridor.

The Old Agency historical marker will require relocation with Alignment Alternatives A, B, or C, but none will impact the actual site.

Mitigation

Mitigation is not required.

4.14 Hazardous Waste Impacts

Hazardous waste sites would not be impacted by the No-Build Alternative.

Given the location of the hazardous waste sites, impacts will not differ from alternative to alternative under the Build Alternative(s). The problems and further evaluation or mitigation needed for hazardous materials would include:

- Further investigation should be conducted regarding hazardous material spills and UST leaks based on the information found during database searches.
- Proper disposal procedures need to be addressed for treated railroad timbers, old tires, abandoned pipeline, tanks and drums.
- Disposal procedures for oil field wastes should be verified since US 89 provides access to active oil wells and oil fields.

The existing bridge structures may have timber decking and abutments that may contain hazardous materials which include (but are not limited-to) wood preservatives (eg.: creosote or other aromatic hydrocarbon compounds; and/or pentachlorophenol).

Mitigation

If the project is approved, soils in areas of potential hazardous waste will be monitored for the presence of volatile organic vapors using a photoionization detector (PID), or an equivalent instrument. As noted previously, there are four sites being monitored. The status and monitoring results of these sites will be reviewed prior to construction to provide the most current information.

Likely mitigation practices for soils potentially contaminated with hydrocarbon, if encountered, include direct disposal or an on-site application treatment (land farming). Contaminated soils may be re-used at the direction of MDEQ and MDT. Disposal of soils potentially contaminated with hydrocarbon fuel compounds will be done in accordance with guidance and approvals obtained from the MDEQ, Teton County, and Pondera County, which are decided on a case-by-case basis. An appropriate type of disposal site for hazardous waste would be a Class II landfill. A Class II landfill is a facility specifically designed for the purpose of hazardous waste disposal.

4.15 Visual Resource Impacts

The No-Build Alternative would not impact the visual character of the corridor.

Typical Section Alternatives

The varying width of the typical section alternatives will have a minor impact on the visual experience in the corridor, but will have no direct effect on the visual resources themselves.

Alignment Alternatives

The visual experience could vary from one alignment alternative to the next, but this would be limited to a difference in cut and fill in the immediate foreground views. Changes in the horizontal and vertical alignment through most of the corridor is not severe enough to change the views from or of the highway.

The provision of scenic pullouts and parking areas will, however, provide an enhanced opportunity to enjoy the scenic character of the corridor. The proposed improvements will enhance the overall visual experience in the corridor.

Mitigation

Side slopes will be reseeded with desirable plant species to minimize the visual impact. No additional mitigation is anticipated.

4.16 Energy Implications

No-Build Alternative

Energy implications are not anticipated as a result of the No-Build Alternative.

Build Alternatives

The dominant source of energy for the transportation sector is petroleum, accounting for nearly two-thirds of that consumed in the United States. Highway travel accounts for nearly three-fourths of total transportation energy used, with about 80 percent used by automobiles, light trucks, and motorcycles and about 20 percent used by heavy trucks and buses.

Fuel consumption is a function of traffic characteristics similar to those affecting emissions. Primary characteristics include traffic flow, driver behavior, highway geometrics, vehicle fleet, and climate. Modeling by the Oak Ridge National Laboratory suggests that of all the travel-related factors affecting fuel economy and average vehicle speed explain most of the variability in fuel consumption and are a good predictor of fuel economy for most trips. Fuel efficiency under steady flow, cruise-type driving conditions peaks at speeds of approximately 56 to 72 km/h (35 to 45 mph) and then rapidly declines at higher speeds.

Without safety improvements, accidents along US 89 would continue to occur at a similar rate. Accidents negatively impact fuel efficiency when traffic is halted due to roadway obstructions. The No-Build Alternative represents the worst LOS for the corridor, with less steady traffic flows and increased fuel consumption.

By making roadway improvements, and thus improving the LOS and smoothing traffic flows as compared to the No-Build Alternative, the proposed improvements would have an effect on those fuel economy factors related to safety conditions and driver behavior. While the overall effect on energy requirement would probably not entail an appreciable benefit, it would also not cause or contribute to additional problems. The energy impacts would be the same for each of the proposed alternatives.

Mitigation

No mitigation is required.

4.17 Construction Impacts Related to the Build Alternatives

No-Build Alternative

There would be no construction impacts associated with the No-Build Alternative.

Build Alternatives

Construction Schedule and Method

The conceptual design for the proposed project has been developed to provide an offset alignment through much of the corridor to allow for minimal disruption to traffic during construction. The corridor would likely be broken into three or four construction projects to be completed as funding becomes available. Public comment has overwhelmingly requested that the northern portion of the corridor be reconstructed first.

Construction Impacts on Land Use and Right-of-Way

Construction easements for grading, irrigation relocations, fencing relocations, approach road improvements, temporary access, or temporary construction staging would be needed from property owners along the corridor. While the property owners would retain ownership of these areas, their use of these areas during construction would be restricted by particular construction activities. Upon completion of the roadway project, the property owners would once again have unrestricted use of these areas again.

Mitigation

Property owners will be given early notification of construction in order to address potential construction impacts.

Construction Impacts on Traffic

During the construction period, traffic impacts would include: increased construction truck traffic and increased traffic congestions, with some traffic delays.

Mitigation

Existing bridges will remain in place during construction to limit detours and minimize disruptions to traffic flow. A traffic control plan will be developed to minimize disruptions to traffic during the construction period.

Socioeconomic Construction Impacts

During the construction period the purchase of labor and materials would provide opportunities for additional jobs and related goods and services. These beneficial economic impacts would continue throughout the construction period.

Mitigation

No mitigation will be required.

Construction Impacts on Businesses

While the traditional access might be altered, business access would be maintained during construction. During construction in Choteau, parking might be temporarily restricted. Construction activities impacting agricultural businesses would include the relocation of irrigation ditches.

Mitigation

A traffic control plan will be developed to maintain business access and minimize disruption to business operations such as deliveries. Business and property owners will be given early notification of construction work in Choteau in order to address potential construction impacts on access parking or operations. Irrigation ditch relocations will be undertaken during the non-growing season, and in coordination with owners to minimize impacts to farming and ranching operations.

Construction Noise Impacts

Reconstructing US 89 would generate noise that could temporarily generate impacts within and outside the highway corridor. Construction noise sources include diesel-powered earth moving equipment such as dump trucks and bulldozers, back-up alarms on certain equipment, compressors, and pile drivers. These sources would be located within the highway corridor, along haul routes, and at staging areas. Another source of noise during construction would be from detoured traffic (if detours became necessary). Receptors that could be impacted by construction noise include all of the receptors identified previously for highway noise impacts, and those located along haul roads, near staging areas, and along detour routes.

Mitigation

At or near residential communities, construction hours will be limited to daylight hours to avoid noise impacts at night. Contractors will adhere to local ordinances and BMP's to minimize noise impacts during construction. Advance notice of construction will be provided to area businesses and residences to minimize impacts on community activities.

Construction Impacts on Air Quality

Air quality related to construction would be limited to short-term increases in fugitive dust and mobile source emissions. Care must be taken during construction to reduce the amount of particulates generated.

Fugitive dust is airborne particulate matter that cannot be captured through a control device. Construction-related fugitive dust would be generated by haul trucks, concrete trucks, delivery trucks, and other earth-moving vehicles operating around the construction sites, as well as normal vehicle use traveling through the construction zones. The dust would be due primarily to particulate matter re-suspended by vehicle movement over paved and unpaved

roads and other surfaces, dirt tracked onto paved surfaces from unpaved areas at access points, and material blown from uncovered haul trucks.

Generally, the distance that particles drift from their source depends on their size, emission height, and wind speed. Small particles (30 to 100 microns) can travel several hundred feet before settling to the ground, depending on wind speed. Most fugitive dust, however, is made up of relatively large particles (i.e., particles greater than 100 microns in diameter). These particles are responsible for the reduced visibility often associated with highway construction. Given their relatively large size, these particles tend to settle within 20 to 30 feet of their source.

Carbon monoxide (CO) is the principle pollutant of concern when considering localized air quality impacts of motor vehicles. Because CO emissions from motor vehicles increase with decreasing vehicle speed, disruption of traffic during construction is likely to result in short-term, elevated CO concentrations.

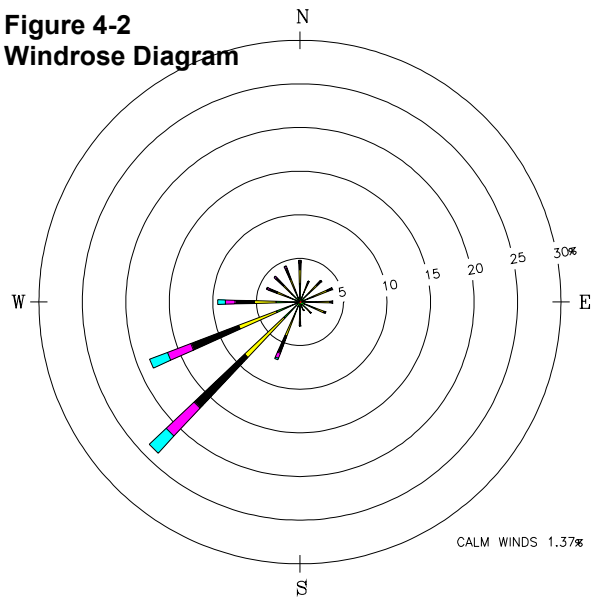
The windrose diagram above illustrates the windspeed and direction recorded over a five year period in the Great Falls area. This is intended to aid in understanding the direction that particulates and CO are likely to be blown during construction in this corridor. Given the relatively sparse population immediately adjacent to this corridor, impacts are anticipated to be minor and short term. However, this information will be used in the development of construction mitigation for air quality impacts.

Mitigation

Fugitive dust and mobile source emissions will be minimized by requiring contractors to adhere to all state and local regulations and to BMP's. Some measures to reduce fugitive dust from construction might include minimizing exposed erodible earth area to the extent possible; stabilizing exposed earth with grass, mulch, pavement or other cover as soon as possible; and applying water or stabilizing agents to the working and haulage areas;. To minimize the amount of additional vehicle emissions, a construction traffic control plan will be developed to limit disruption to corridor traffic.

Construction Impacts on Water Quality

Figure 4-2
Windrose Diagram



WIND SPEED CLASS BOUNDARIES
(MILES/HOUR)

NOTES:
DIAGRAM OF THE FREQUENCY OF
OCCURRENCE OF EACH WIND DIRECTION.
WIND DIRECTION IS THE DIRECTION
FROM WHICH THE WIND IS BLOWING.
EXAMPLE - WIND IS BLOWING FROM THE
NORTH 4.8 PERCENT OF THE TIME.

PERIOD: 1988-1992
Great Falls, MT

BEE-LINE
SOFTWARE

Instream work associated with construction could result in temporary increased erosion potential, reduced slope stability, and could temporarily increase turbidity downstream of the project area. Water quality could also be temporarily impacted by the influx of petroleum products and other pollutants during construction.

It is not believed that construction impacts to water quality would be substantial enough to cause water body quality in the study area to be greatly impaired.

Mitigation

Construction staging and storing areas should be located at least 30.5 m (100.0± ft) from the ordinary high water mark of all drainages. The BMP's will be utilized during the construction phase to mitigate any impacts. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared as part of the design and permitting process.

Erosion Control and Construction Impacts on Wetlands

Placing and removing any work bridges (if needed) and highway construction would cause both temporary soil surface disturbances and short-term siltation into waterways in the project area.

Mitigation

MDT will re-establish a permanent desirable vegetation community over all landform surface areas disturbed by construction. This action will be in accordance with *M.C.A. 7-22-2152 and 60-2-208*, and MDT will prepare a set of revegetation guidelines that must be followed by the contractor. These specifications will include instructions on seeding methods, dates, mix components, and the types and amounts of mulch and fertilizer. Seed mixes include a variety of species to ensure that areas disturbed by construction were stabilized with vegetative cover. The seeding special provisions developed for this project will be forwarded to the Teton and Pondera County Weed Control District offices for approval.

Rip-rap will be placed around the proposed bridge's abutments to prevent scour. An erosion control plan for the proposed alignment will be submitted to the MDEQ's Permitting and Compliance Division in compliance with their Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314). BMP's will be used in the road design, using guidelines established in MDT's *Highway Construction Standard BMP's*. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

Temporary impacts during construction will be minimized using BMP's (MDT *Road Design Manual* and *Standard Specifications for Road and Bridge Design*). If approved, the design of the Preferred Alternative will include all feasible measures to minimize wetland impacts during construction, including:

- All wetland areas not to be impacted by the project will be protected from unnecessary encroachment by temporary fencing.
- No staging of construction equipment or storage of construction supplies will be allowed in a wetland or near any water-related area.

- Standard erosion control measures will be observed. All bare fill or cut slopes adjacent to streams or intermittent drainages will be stabilized as soon as possible.
- No fertilizers, hydrofertilizers, or hydromulching will be allowed within 30.5 m (100.0 ft) of any stream, intermittent drainage, or wetland.
- The contractor will be provided with a copy of the Section 404 permit to notify the contractor of the permit area and all other impacts. Any potential impacts beyond those authorized will be coordinated with the Corps of Engineers prior to occurrence. The contractor will be responsible for obtaining an additional 404 permit for any temporary disturbances during construction.
- Hazardous materials, including fuels and lubricating oils, will not be stored within 30.5 m (100.0± ft) of wetlands or streams. Additionally, construction equipment will not be refueled within 30.5 m (100.0± ft) of wetlands or streams.

Construction Impacts on Archaeological and Historic Resources

Direct physical impacts to cultural resources might occur during ground-disturbing activities associated with road building, such as vegetation removal, grading of cuts and fills, and preparation and use of temporary yards for equipment and materials storage. Direct impacts to archeological sites would vary as a function of site type, terrain, and construction technique. Whatever the conditions and techniques, they could impact the integrity of any cultural resources in the path of construction. Indirect impacts might also result from altering the setting adjacent to sites that are important for values other than their information content.

Mitigation

In the event that archeological resources are discovered during construction, appropriate mitigation measures will be followed to ensure their identification, evaluation, and disposition in accordance with 23 CFR 135(g)(1).

Construction Impacts to Utilities

The availability of local and regional water supplies will be assessed and coordinated with local authorities prior to construction. Water might be required during construction to control fugitive dust. Utility service disruptions would be minimal and would be completed prior to construction as discussed previously in the Transportation Right-of-Way section of this chapter. The majority of the utilities impacted would telephone and over head power. A complete utility plan will be completed prior to construction.

Mitigation

MDT and the contractor will work with the utility providers and adjacent property owners to avoid or minimize service disruptions.

4.18 Relationship Between Local Short-term Uses of the Human Environment and the Maintenance and Enhancement of Long-term Productivity

Short-term impacts are anticipated during the construction of the proposed improvements to US 89. These impacts include traffic disruption during reconstruction of the travel lanes and

bridge replacements. These disruptions could result in short-term impacts to residential and business access, as well as local traffic flow.

As described in Section 4.6, Section 4.7, Section 4.8, short-term impacts related to noise, air quality, and water quality could also be expected. Mitigation measures will be employed to offset these impacts.

The proposed improvements to US 89 are consistent with local and regional planning for land use and the transportation corridor; thus the contribution to the maintenance and enhancement of long-term productivity of the towns within the study corridor, Teton and Pondera Counties, and Montana would outweigh the local short-term impacts anticipated by the proposed project.

4.19 Irreversible and Irretrievable Commitments of Resources That Would Be Involved in the Preferred Action

Construction of the proposed improvements to US 89 would involve the commitment of a wide range of the following resources:

- Natural resources in the form of land converted for highway use,
- Physical resources in the form of construction materials for the improved facility,
- Human resources in the form of labor employed during construction,
- Fiscal resources in the form of public funding for construction.

Land used for the Build Alternatives would be considered an irreversible commitment during the period that the land was used for a highway facility. Specifically, agricultural land, ranchlands, and wetlands would be irreversibly affected by the proposed alignment. However, if a greater need arose for the land or if the highway facility was no longer needed, the land could be converted to another use. At present, there is no reason to believe such a conversion would ever be necessary or desirable.

Considerable amounts of fossil fuels, labor, and highway construction materials, such as cement, aggregate, and bituminous material, would be expended. Additionally, large amounts of labor and natural resources would be used in the fabrication and preparations of construction materials. These materials are generally not retrievable; however, they are not in short supply and their use would not have an adverse effect upon the continued availability of these resources.

Any construction would also require a substantial one-time expenditure of both state and federal funds, which are not retrievable. The commitment of these resources is based on the concept that residents in the immediate areas, Montana, and the western region would benefit by the improved quality of the transportation system. These benefits would consist of improved accessibility and safety. Additionally, benefits of increasing safety and efficiency of travel and reducing travel times and efficiency of travel are anticipated to outweigh the commitment of these resources.

4.20 Cumulative Impacts

Cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

Given that this route was constructed sixty to eighty years ago, and has received only minor upgrades since that time, this proposed project does not present substantive cumulative impacts when viewed in light of the age of previous construction, the rural nature of the corridor, and the slow residential and commercial growth in the north central region of Montana.

Other Pending/Ongoing Actions

None of the towns or counties within the study area have projects that will result in any cumulative impacts. The following project is located within proximity to the proposed US 89 corridor improvements:

US Highway 89 - Browning to Hudson Bay Divide (STPP 58-1(19)0; CN 4045). This Corridor Study was initiated to assess similar needs, deficiencies, and opportunities as the corridor study from Fairfield to Dupuyer. The Browning to Hudson Bay Divide project is still in the early planning stage, and no impacts have been quantified to date. The project will be fully assessed through an Environmental Impact Statement.

When considering cumulative impacts, it must be recognized that transportation facilities are only one of many factors affecting growth and development. Development is influenced by a complex interaction of natural and built environments, economic conditions, and individual perceptions. Growth of an area is dependent on such factors as the availability of jobs, quality of life, property taxes, and quality and availability of schools and other public services.

Because this area is not currently experiencing, nor is it anticipated to experience, substantial increases in population or employment, and because the proposed improvements to US 89 would essentially maintain the existing roadway at two lanes very near its current alignment, it is not anticipated that this proposed action individually or cumulatively, when considered with the other projects, would have any substantial cumulative impacts relating to induced growth and development. Further, it is anticipated that any increase in tourism-related activity as a result of the proposed project would simply serve to maintain the status quo in this flat-growth area of the state.

4.21 Permits Required

As construction of this proposed project may be in the distant future, no permits will be acquired in the short term. If the project is approved, the following permits will be required prior to any relevant disturbances:

This proposed project will be in compliance with both the water quality provisions of 75-5-308 M.C.A. for Section 3 (a) authorizations, and stream protection under Sections 87-5-501 through 509 M.C.A., inclusive. A 124 SPA Stream Protection Permit will be requested from MFWP. An on-site review of this proposed project, with representatives from MFWP and MDT, will be scheduled if necessary. All comments, suggestions, and/or conditions resulting from review of existing data and/or on-site inspections would be documented, included in this proposed project's files, and taken into account in the final design specifications.

The proposed project would also require the following under the Clean Water Act (33 U.S.C. 1251-1376, as amended):

- A Section 402/Montana Pollutant Discharge Elimination System (MPDES) authorization from the MDEQ's Permitting and Compliance Division. The Build Alternatives would require new right-of-way and require an MPDES construction phase permit, which is issued in response to the 1987 re-authorization of the Clean Water Act. The Clean Water Act requires the U.S. Environmental Protection Agency to institute a National Pollutant Discharge Elimination System (NPDES) permitting program for storm drainage systems or to approve the state's programs. EPA approved Montana's program in 1987.

Obtaining the MPDES permit requires development of a storm water pollution prevention plan that includes a temporary erosion and sediment control plan. The erosion and sediment control plan identifies BMP's, as well as site-specific measures to minimize erosion and prevent eroded sediment from leaving the work zone.

- A Section 404 permit from the U.S. Army Corps of Engineers would determine if this project qualifies for a nationwide permit under the provisions of 33 CFR 330. Projects impacting waters of the U.S. (including wetlands and special aquatic sites) require a Section 404 permit.
- A water use permit is required from Montana's Department of Natural Resources and Conservation.

All work would also be in accordance with the Water Quality Act of 1987 (P.L. 100-4), as amended.

A FEMA floodplain development authorization would also be required from the Teton County and Pondera County floodplain administrator(s).

5.0 LIST OF PREPARERS

The roles and qualifications of the FHWA, MDT, and consultant team members responsible for the conduction of the Study, and preparation of the environmental documentation are presented below.

Name/Affiliation	Role	Education and Experience
Dale W. Paulson, P.E. Program Development Engineer FHWA	Lead Agency	B.S. – Civil Engineering. Program development engineer and team leader for the statewide program areas of environment, planning, safety and design, right-of-way and materials. Over 30 years of experience in highway engineering, environmental review, and project management.
Darrin Grenfell, P.E. –S.C. Operations Engineer FHWA	Lead Agency	B.S. – Civil Engineering, with an emphasis in highway engineering. Operations engineer with design, construction, and maintenance responsibilities for the MDT Great Falls District. Over 10 years experience in highway engineering, environmental review, and project management.
Michael P. Johnson District Administrator MDT	Project Management	B.S. – Business Administration. District Administrator for MDT. 18 years with MDT and Administrator for 7 years. Responsible for overall construction program, roadway maintenance, and support services in the Great Falls District.
Robert F. Thomson, P.E. Engineering Services Supervisor (retired) MDT	Project Management	M.B.A., B.S. – Civil Engineering, B.S. – Business. Responsible for managing and coordinating MDT Great Falls District pre-construction functions for Project Design, Materials Engineering, Traffic Engineering, and Utilities. Over 30 years experience in Engineering Design, Construction Management, and Materials Engineering.
Jason Giard, P.E. Engineering Services Engineer MDT	Project Management	B.S. – Civil Engineering. Responsible for managing and coordinating MDT Great Falls District pre-construction functions for Project Design, Materials Engineering, Traffic Engineering, and Utilities. Over 25 years experience in design and construction of highways.
Fred Bente Consultant Project Supervisor MDT	Project Management	B.S. – Civil Engineering. Responsible for managing and coordinating pre-construction projects being performed by consultants for MDT. Over 20 years experience in highway engineering, environmental review, and project management.
Jean A. Riley, P.E. Engineering Services Supervisor MDT	Project Management	B.S. – Civil Engineering. Over 6 years experience in coal mining environmental, over 11 years with DEQ environmental, and over two years with CTEP.
Darryl L. James, AICP HKM Engineering, Inc.	Project Management/ Documentation, Public Participation	Master of Public Administration – Environmental Law and Policy; B.A. – Public Affairs and Political Science. Senior consultant with 10 years professional experience. Expertise in corridor studies, transportation planning, environmental analysis, and NEPA/MEPA documentation.
Jennifer L. Peterson HKM Engineering, Inc.	Project Documentation	B.S. – Civil Engineering. Transportation and Environmental Planner with over four years experience in transportation planning, traffic engineering, and NEPA documentation.
Kirk W. Eakin URS/BRW, Inc.	Biological Resources	B.S. – Fish & Wildlife Science. Senior biologist with 13 years of professional experience in wildlife ecology and biology, fisheries biology, and wetland science.
Mark Shippen, P.E. URS/BRW, Inc.	Preliminary Design, Alternatives Development	Project Manager for URS/BRW with over 15 years of experience in project management, roadway design, public involvement, surveying, and transportation planning.
Shaun D. O'Connor URS/BRW, Inc.	Preliminary Design	Bachelor of Technology in Design. Senior Designer with over 18 years of experience in highway design, plan development, and environmental impact determination.

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6.0 DISTRIBUTION LIST

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MONTANA HIGHWAY COMMISSION

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Attn: Meredith Reiter, Commissioner

MONTANA STATE LIBRARY

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**MONTANA STATE HISTORIC PRESERVATION
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Leo Mueller, City Superintendent
Agnes Kolste, Council Member
Ron Dauwalder, Council Member
Scott Gasboda, Council Member
Ethan Allen, Council Member

Town of Choteau

38 1st Avenue NW
Choteau, MT 59422
Attn: Dan Clark, Mayor

Attn: Ray Noyd, Council Member
John Buck, Council Member
Doug Vandolah, Council Member
Larry Renteria, Council Member

Choteau High School

204 7th Avenue NW
Choteau, MT 59422
Attn: Rick Ripley, Superintendent

Blackfeet Tribal Administration

Blackfeet Nation
P.O. Box 2809
Browning, MT 59417
Attn: Earl Old Person, Tribal Chairman
Marilyn Parsons, Planning

Teton County

P.O. Box 146
Choteau, MT 59422
Attn: Mary Sexton, Commissioner
Sam Carlson, Commissioner
Arnold Gettel, Commissioner
Lucile Lussenden – County Planning Board
Paul Wick, Planner

Pondera County

20th 4th Avenue SW
Conrad, MT 59425
Attn: Bill Rappold, Commissioner
Dale Sheldon, Commissioner
Sam Harris, Commissioner
Lucile Lussenden – County Planning Board

204th Avenue Southwest
Conrad, MT 59425
Attn: Hazel Palimino, County School
Superintendent

215 S. Maryland
Conrad, MT 59425
Attn: Kurt Hilliard, Conrad Public Schools

220 4th Avenue SE
Conrad, MT 59425
County Road Department

Individuals

All individuals submitting substantive comments on the DEIS were sent an Executive Summary of the FEIS as well as a copy of Appendix C: Comments and Responses.

Public Copies

Copies of this document will be available at the following Montana locations:

Fairfield: Fairfield High School Library
Choteau: Choteau Public Library
Dupuyer: Dupuyer High School Library
Great Falls: Great Falls Public Library
Helena: Montana State Library

7.0 COMMENTS AND COORDINATION

This chapter describes the continuous public and agency involvement program utilized throughout the project development process to gather input from those either interested in or affected by the project.

7.1 Agency Coordination

At the outset of this project, letters were sent to agencies with jurisdiction or permitting authority on this project (as documented in Appendix A). These letters requested specific information relevant to the project and/or their participation as a Cooperating Agency. The formal status of each agency contacted was confirmed during circulation of the DEIS, as follows:

Cooperating Agency

U.S. Army Corps of Engineers (CoE)

Agencies with Jurisdiction and/or Permitting Authority

Advisory Council on Historic Preservation (ACHP, review “Determination of Effect”)

Montana Department of Environmental Quality (DEQ)

Montana Department of Natural Resources and Conservation (DNRC)

Montana Fish, Wildlife & Parks (MFWP)

Pondera County

State Historic Preservation Office (SHPO)

Teton County

U.S. Environmental Protection Agency (EPA)

Other Agencies, Groups, or Persons Contacted, or Having Contributed Information

Montana Department of Natural Resources and Conservation

Montana Natural Heritage Program (MNHP)

U.S. Department of the Interior’s Fish & Wildlife Service (USFWS)

U.S. Department of Agriculture’s Natural Resources Conservation Service (NRCS)

7.2 Public and Agency Meetings

Three substantive public meetings have been held in the corridor. They are identified below, and complete transcripts follow.

Public Scoping Meeting(s)

November 17 and 18, 1999

Choteau Alternatives Meeting*November 23, 2000***Conceptual Alternatives Meeting(s)***May 2 and 3, 2000***7.3 Public Hearing**

A public hearing was held in Choteau on November 14, 2002. A public notice for this Hearing was published in the *Choteau Acantha* and the *Great Falls Tribune*. A direct mailing was also sent to all individuals on the project mailing list.

Due to a failure of the recording equipment at the Hearing, a transcript was not possible. To provide adequate opportunity for comment, the public review period was extended. All written comments received, as well as responses to all comments received are included in Appendix C of this FEIS.

There was no request for an additional Public Hearing.

STPP 3-2(27)28
Control No. 4051

Public Scoping Meeting(s)
November 17 and 18, 1999

Transcripts

November 17, 1999
Fairfield Community Hall

Approximately 15 people were in attendance at the Fairfield meeting on Wednesday evening. A Project Information Sheet and a Comment Sheet were provided as people entered and signed in. A copy of the sign-in sheet is attached.

The meeting began at approximately 7:00 p.m. with a presentation of the FHWA Project Development process, the NEPA process, the issues to be addressed through the study, and the level of documentation.

The forum was opened for comments and questions at around 7:30 p.m. The following provides a complete transcript of the question and answer portion of the meeting.

[unidentified] – Going north of Choteau, are you going to follow the existing road or are you ever going to straighten it out?

Darryl James (BRW Project Manager) – We are aware of a significant number of poor horizontal and vertical curvatures in that area and it's definitely part of the plan to try to correct as much of that as possible. We are aware that you can get into some pretty serious cut and fill trying to flatten and straighten the alignment in that area but it is one of the alternatives that we will be looking at in trying to assess those impacts and evaluating whether that makes sense or not.

Representative Sam Rose (Choteau) – I would suggest that you continue from Dupuyer south, because that is the most dangerous section of the road - from the Pendroy turnoff to Dupuyer. You should start construction there first. Also a comment on the threatened and endangered species. If you go back and read the U.S. Fish and Wildlife Service report done in '89 or '87, as "situation three" where they do not belong out there. So, I wouldn't let that cloud the issue.

D. James (BRW) – The threatened and endangered species?

Rep. Rose – That's absolutely correct.

D. James (BRW) – We talked with Montana Fish Wildlife and Parks yesterday and they identified a grizzly bear recovery boundary that comes up close to the US 89 alignment. So we are aware of that issue and they're not sure that it would be a hindrance at all at this point.

Rep. Rose – That's my point – that was an issue in about 1968, and that was their east boundary.

D. James (BRW) – We are aware of that and coordinating with the resource agencies. So, we will stay on top of that one.

Rep. Rose – Do you anticipate any impact on water?

D. James (BRW) – Water Quality? Water Resources? Don Jacobs is our Hydrologist with BRW and he has gone out in the corridor in the last couple of days and has identified all of the watercourse crossings, canals, and creek crossings. We wouldn't impact any live streams. We're not gonna reconstruct or realign any creeks. If we move the realignment, we'll move the structure. We would move a culvert or bridge and not realign any kind of flowing water at all. It is a very sensitive resource in a community like this and we are aware of this and we will do everything possible to minimize those kinds of impacts.

Rep. Rose – A closing comment - I believe that this is worst section of road from Pendroy to Dupuyer that I have ever driven in the U.S. And for going into the 21st Century, is almost an embarrassment for you professional people, and I wouldn't feel you'd tolerate a road of that nature.

D. James (BRW) – It was constructed about in the early 20's and it shows. I agree.

Ken Hart (Fairfield) – I built the regional power line from Pendroy into Dupuyer in the fall of 1939. We pretty much followed the highway's right-of-way up through there and to my knowledge, not a thing has been done to improve the alignment, or no work has been done on that section other than just patchwork.

Mitch Johnson (Fairfield) – Will they widen the road down through Freezeout? I know from driving back and forth to Choteau - there are always people pulling off and looking at the birds and stuff. Will they put a pull off out there at all?

D. James (BRW) – That's an option. The potential improvements are to add shoulders at the very minimum. This is something that we talked about with Montana Fish, Wildlife and Parks is to provide some pullout areas. They have a couple or more parking areas along the existing alignment - pretty crude little pullouts. So, yes, that's part of a potential alternative.

Mitch Johnson – Some of the major places might be – as you drop over our airport hill there is a place where there's a weigh station off to the left. That's about wide enough that you'll see people pull-off all the time. But if you get down past Freezeout, past the headquarters around the flat land on the dike out there – you know just a shoulder like we have on our roads like you're talking is probably not wide enough to have people pull off and use cameras. They're out there all the time during the summer – all the time. That may not be just a road thing, but it's also a hazard problem.

D. James (BRW) – These are the kinds of things we need to know to know what types of improvements to propose. If it is a high use area, if you frequently see people pulling off to the side of the road, maybe we look at widening the shoulder on one side to accommodate some of that. Or maybe it's a designated parking pullout in some of those areas. That's exactly why we are here tonight. What do we need? What do we need to start looking at? What do we need to start considering for the design? So – thank you.

Robert Koren (Fairfield) – When you go through Choteau, are you gonna clear back those trees along the Teton River? That's the most dangerous deer part in the whole area – I think.

D. James (BRW) – I'm not sure what clear zone would be required there. I know that on other projects, we have cleared vegetation back if there has been a high accident rate reported in that area. Many times with deer strikes, they are simply not reported. So if those don't show up in the accident reports, this is something that we will have to get from the public and your input. At this point, I'm not aware of any high accident rates at that area.

Bob Thomson (MDT) – There have been some accidents south of Choteau and north of Choteau in the very areas he has described. They have been looked in to by our safety management people and in the recent past, we've put up some more deer crossing signs. The accident clusters will come out in the study I'm sure.

D. James (BRW) – Just to let you know, we are going to be conducting a full geometric and operational analysis that will show us things just like that - where the accident locations are and if they are concurrent with a bad curve. Or is it a highly vegetated area, a riparian area, where you've got a lot of deer crossings? We also heard from Fish, Wildlife and Parks that there have been a lot of grizzly crossings and they have had one strike on 287. They said they are just waiting for this number to escalate with grizzlies crossing in the area. So, we will be taking a look at those kinds of issues.

Rep. Rose – Under the Federal Highway Act - maybe a federal man can answer this - are there any stipulations for wildlife viewing where they have to have so many turnouts, or at a certain angle?

Steve Saxton (FHWA) – We would probably look to AASHTO. Bob, do you know of any regulations?

B. Thomson (MDT) – There are design standards for turnouts for various things. But this really depends on what the public wants and the geometrics of the roadway, locations, and demand. There are definitely design standards for turnouts, and pullouts at various levels. I'm sure you've all seen them at some of the historical markers with just a short turnout, and others with a whole separation from the roadway with driveways in and out. Some of our rest areas are totally off, away from the roadway. This would depend on the level of facility that was indicated. But there are design standards for all levels.

D. James (BRW) – That is something you are going to hear a lot – if I can elaborate on the issue of design standards. What design standards are we going to be designing to? We will be using the MDT Design Standards for the project. They take a lot of theirs from what Steve said earlier, AASHTO - American Association of State Highway Transportation Officials - Greenbook. There's voluminous information on how to design these things, and as Bob was pointing out, it is pretty lengthy and they have thought of a bunch of different scenarios for something just like that. There could be five different designs just for a historic pullout or a wildlife viewing area.

S. Saxton (FHWA) – They consider things like sight distance and ability to slow down to pull in and out.

D. James (BRW) – Today there are a number of intersecting roads that come in at a pretty severe angle and you really have to strain to see over your shoulder to see oncoming traffic. Those things will all be looked at as well.

Rex Manuel (Fairfield) – How do they find out in the City of Choteau, there are a lot of accidents because of the main street and people backing up. And I know there are a lot of accidents - are those reported so the area could be checked out as a high accident area?

D. James (BRW) – They are, and I did look at that, but I'm not sure that we have attributed that yet to the diagonal parking but it is something that we are going to take a closer look at and discuss with the City. Again, potential alternatives to try to address that concern – it's kind of a goofy arrangement through there right now, and we have several different issues in a little mile stretch going through Choteau.

B. Thomson (MDT) – There will probably be several alternatives identified and discussed about how the road goes through Choteau. By law, we cannot bypass Choteau. We cannot bypass an incorporated community without the permission of the community.

[unidentified] You won't get it.

D. James (BRW) – No, and we're not asking. [crowd laughter]

Quentin Kujula (MFWP) – I just wanted to say, when you talk about things like NEPA and MEPA in projects like this, a lot the times it sounds like some of those things like wetlands and Freezeout can act as an obstacle in things like this. I think that, coming out of the Freezeout office, there is a lot of room to cooperate with us. With a good idea like this, the most pertinent point I can make is that as far as cooperation with construction efforts, the most prevalent thing on our minds is that if you need an adjustment in some water levels - we will need quite a bit of lead time on that. We are all gravity feed and if that is something that's in your planning process, we need as much time as possible to prepare for that (upwards even of a year), if that is possible, so we can be ready to receive your efforts.

D. James (BRW) – OK, great. I should point out that in the agency meeting yesterday, representatives from Fish, Wildlife and Parks talked about if we need to completely avoid Freezeout Lake. Is this a sensitive resource so much so that widening by 10 to 20 feet would be impairment? Is that an obstacle? The answer was - absolutely not. This is a use area and if we move this alignment, we are impacting more of the public in this area than the widening would hurt anybody. I think through that area, we would propose to widen to the east toward the railroad alignment and stay out of the wetlands and the ponds to the greatest extent feasible. We'll see if we can work that out. We have to find out what the clear zone requirements are for the railroad but it looks like that going through the Freezeout Lake area and continuing on the existing alignment is certainly a feasible alignment.

Rep. Rose – Have you ever done an analysis on an economic impact on the communities of Choteau, Fairfield, and Bynum with traffic increasing from park to park?

D. James (BRW) – I'm not aware of any detailed economic analysis on this route. Bob, do you know if anything has been done like that?

B. Thomson (MDT) – I would suspect that is somewhat beyond the scope of an MDT project in this corridor. That would be more of a state thing – probably by your folks [referring to Rose]. We typically don't get into the economic analysis. We are in the business of building and maintaining highways and a lot of things affect that as you well know. This would be more of a Chamber of Commerce or a Legislative issue. At this point we are just here trying to find out what everybody wants and if people say they want an economic analysis, maybe it will get covered in the process – but typically that's beyond the scope of a highway project.

D. James (BRW) – I would say that, you may have noticed one of the issue areas, social and economic concerns are part of the NEPA process. But with an existing alignment, you really don't see a lot of change so it is not anticipated that you are going to see a boom or a bust resulting from a reconstruction project.

[unidentified] I'm with Three River Telephone and we have a lot of utilities and cable that will be in conflict here. I'm just requesting that you give a lot of leeway. What we are going to have to do is give right-of-way above and beyond your right-of-way involving your width. Sometimes we have run into problems with MDT – not big problems, but sometimes when they let the contract, we are still trying to find right-of-ways and get our utilities out of the way. So, we would like to think that you're going to talk to us.

D. James (BRW) – In that process that I had up there earlier, all that would be coordinated during right-of-way and final design, which is a couple of years off and I'm sure that will be coordinated with Bob and the District.

B. Thomson (MDT) – What we are doing right now is the environmental process. There won't be any construction contact before their project. That will come later after the environmental documents are complete. We won't even nominate a project for construction until this process is complete, and these guys [referring to the BRW staff] are gone.

D. James (BRW) – I would like to point out that the document should be enough of a master plan, in a sense, that you can identify where you may have conflicts and start trying to plan for that. Stay in close communication with MDT on what you think needs to be done. You'll have a good enough picture of what's coming to at least start planning on that.

B. Thomson (MDT) – I certainly do understand where you're coming from. That's why we are trying to get some of these on line, further ahead so we don't run into as much of this problem. Hopefully we can get this done if we can just get the project – first of all, the environmental documents done – that allows us to nominate a project, and then get the surveying done, so we can get the design done, so we can get the right-of-way blocked, so we can get these buildings moved, so we can build the road. And the farther ahead we are with the right-of-way, and utilities the better off we are. Whatever we can get from you folks to help us out in our planning and design work is gonna help that happen.

D. James (BRW) – We are going to try all of those things during the early survey efforts as well. We will be in touch with you.

[unidentified] You had mentioned that there would be several phases and that they could not build it all at once. My question is – will the design or the route be picked up through the whole corridor?

D. James (BRW) – Absolutely, that is the intent of this document - to pick the alignment that we know is coming. Then Federal Highways will approve that alignment. It basically goes on the shelf and says that this is the master plan, the long-range plan

for those improvements, and then MDT will construct that as the funding becomes available and as they can construct it. Once that plan is established, there is no reason to expect that it would change to any significant degree.

B. Thomson (MDT) – If we don't get to some of the areas within the first few years, we may have to freshen up this environmental document again by law. They are only good for a certain period of time before they have to be reevaluated.

D. James (BRW) – A reevaluation or a supplemental is done after 3 to 5 years. This is to find out what has changed on the ground that we may need to be aware of, or to adjust based on recent developments. That would be the only reason that you would expect any kind of a change, and MDT would be handling that process at that point.

Rep. Rose – I'm curious, what is so sensitive about this area that you are going through, other than that you are possibly going through Freezeout?

D. James (BRW) – Sensitive resources?

Rep. Rose – Yes.

D. James (BRW) – Wetlands are one of the main concerns and the threatened and endangered species and the habitat issues towards the northern end. Also, historic and paleontological resources. Bob has mentioned that there may be the potential for Native American cultural features and antiquity. A lot of the things – say if you cut through a hillside and locate something, it doesn't mean it stops the project. It is just something the resource folks need to recover and document. It doesn't mean that you can't go there. With a lot of things, if it is something that is relatively common, the State Historical Preservation Office just wants to know where it is, document it, and recover some of those pieces. It is not a deal killer, but is something that we have to jump through that hoop and make sure that it is done right and that it is done according to federal regulations.

Rep. Rose – I mean, let's face it, you're back yard is environmentally sensitive. I mean, everything is sensitive.

D. James (BRW) – Again, it's not a matter of it being so sensitive that we can't do it, but it is an accounting for it and making sure that we quantify it. And if it is something that we find to be so sensitive, then we need to find a way to avoid the impact or minimize the impact to the greatest extent feasible.

S. Saxton (FHWA) – Even for an overlay project, MDT has to document that there either isn't something sensitive, or at least show that they have addressed those issues. So even something as simple as just putting plant mix down on a road – you still have to address those issues.

D. James (BRW) – I should point out that Federal Highways started out with this relatively long corridor – I mean 40 to 50 miles is a lot to tackle at once. They said “Let’s start out on the right foot here and go at it aggressively, and locate everything we possibly can. We can back off of this full Environmental Impact Statement if we can, and do something lesser if we find that there are no real significant issues.” That’s the approach that we are taking now. One of the most critical pieces is just coming to talk to you and making sure we know what your concerns are, and that you have some involvement in this process. If you think we are going overboard, tell us that, and that goes for the agencies as well.

Anything else?

Rep. Rose – You got by pretty easy partner.

D. James (BRW) – I did – you guys were too easy! If that’s all, let’s move over and look at the aerials, and I would love to get your comments down on paper and we’ll jot some notes on the aerials. We’d like to get your comments on some of the site-specific concerns. Thanks again for coming out on a cold and rainy night.

Meeting adjourned at approximately 9:00 p.m.

November 18, 1999 **Stage Stop Inn - Choteau**

Approximately 120 people were in attendance at the Choteau meeting on Thursday evening. A Project Information Sheet and a Comment Sheet were provided as people entered and signed in. Copies of the sign-in sheets are attached.

The meeting began just after 7:00 p.m. with a presentation of the FHWA Project Development process, the NEPA process, the issues to be addressed through the study, and the level of documentation.

The forum was opened for comments and questions at around 7:30 p.m. The following provides a complete transcript of the question and answer portion of the meeting.

Florence Anderson (Choteau) – Will this impact the streets in Choteau that adjoin the highway? Is there funding to fix the street?

Darryl James (BRW Project Manager) – Just the junction with US 89. They will taper in to whatever grade 89 comes through. It won’t go back on those streets at all.

Bill Jones (Bynum) – I'm a long time on this road. I started out quite a long time ago. I don't know whether there's anybody here that's been here longer, but I've had a lot of experience on that road from the time it was changed from the old wagon road, to the time it got be be through Bynum and off to the side, miss the Blackfoot Campgrounds and up over the hill and ended up where it is now. I would like to say that a lot of information went into that thing, and I think that we might have made some mistakes at that time. I hope that this is an opportunity to take another look and come back and clarify some of those things and end up with a better road that serves the people better. That's the only reason we have a road. It would not only service us better, but it would also serve the people who travel through who want to see the best Rocky Mountain picture in Montana. Whatever else they want to use as the need for the road – that's really why we do it. We don't do it for the fun. We don't do it to spend money. We don't do it to please politicians. We do it to serve the people better. That's what I think our goal is, and that's what we should be doing.

Vernon Larson (Choteau) – I have lived here in Choteau since 1950 in the neighborhood and in the Fairfield area since 1938. I worked for the dairy here in Choteau and I drove that road once a day, twice a week for about 11 months. I had some awful close scrapes. I come as close as I dare want to go without smashing up. Met a car coming around – it was a California Cadillac with an old couple in it - at the top of the Walstein Hill, they cut that short, they were on my side of the road - I was going up. I had no place to go but to try to stop. They missed me by maybe six inches. That was a scare. I was going down, a little beyond there, that winding snake wind road - I met a car coming up - solid ice - that was on the wrong side of the road and couldn't gain any momentum. All I could do was just slow down as much as I possibly could and pray to God that she got out of the way before I got there. Well she did. I come down there one time there was a stock truck tipped over. Had 28 head of hereford cattle layin in the bar ditch - dead. Then I drove that road - worked for Teton County for 27 ½ years – I run that road twice a day for possibly a month or two at a time – occasionally – not every year. I think it is one of the worst roads in the State of Montana, for traffic. I've run into one down at Broadus that was a snakey road, and one over at Kiowa Junction into the Glacier Park. But I think this road here should have been changed quite a few years ago. You could have bought that land when it was pasture land, now it's in farm ground and it's gonna cost an awful lot more money to purchase it. So I hope, along with this curve here in town [crowd laughter], it gets straightened out. Thank you.

Jim Salmond (Choteau) – I was in the oil & gas exploration business in the 60's, 70's, and 80's. We couldn't get a permit to travel down Highway 89 from Browning to Choteau. We'd have to go to Cutbank and Shelby, and back to Choteau, staying on the highway with our heavy loads. I also have livestock interest in Glacier County and Teton County. If you straighten that route out, you will save mega-bucks for me on my trucks. Thank you.

D. James (BRW) – Thank you

Jack Hanye (Dupuyer) – I agree with most of the comments that Dupuyer south to the Pendroy turnoff really needs attention. I don't know how much you want to move it but you got to straighten some of those. Anyway, I think most of us agree that that road – I've lived there 45 years and it hadn't changed much in that time, and I think it would be a good idea to work on it. Thank you.

D. James (BRW) – Thank you. Who else has a comment?

Dave Wall (Dupuyer) – I was Section Boss in Dupuyer on the Highway Department for 15 years - worked there off and on since '58. You've got three bridges up there that are shot. You spend more time plowing and sanding between Birch Creek and Pendroy than you do any other chunk of road up here.

Tootie Rasmussen (Choteau) – I always have something to say. I was on the Water Impact Study for the City of Choteau at one time and the main aquifer that serves Choteau and all of this valley is under the ground from Choteau up until where you turn off to go to Teton Canyon. The aquifer is not very deep, where it comes to the surface, and it is something that should be considered.

Percy Ostle (Bynum) – I moved up in this country in 1951. We had a flood in '64. I helped guard the Bynum Bridge and that is one of the most dangerous spots, I consider, on this road. I've seen several close calls and I had a close call there between a truck and myself, I took the mirror off my truck and a semi hit the other side of that bridge. That bridge is narrower on one end than it is on the other [crowd laughter] and it's on an "S" curve. It's a miracle there hasn't been somebody killed on that bridge. The out-of-state tourists never slow up – I don't think they know what a "narrow bridge" sign means, and that should be changed and straightened.

Eva Ansett (Choteau) – I guess I have a question: What do you plan to do between Fairfield and Choteau? As far as I'm concerned I think that road is pretty good, and they resurfaced it, there doesn't seem to be a lot of problems with potholes, width is pretty good, what do they plan to do with that?

D. James (BRW) – [repeated question] The plans at this point – again the intent was – MDT started looking at this roadway for routine maintenance and decided that the maintenance cost far exceeded what it made sense to spend on just maintaining the existing roadway. It was due for reconstruction anyway. So, at this point, we are looking at adding shoulders to the either the existing alignment where the alignment is OK, or realigning where it no longer meets current design standards. If you've been up north of Dupuyer, it would basically match that area. It would mirror the shoulder width that has been added the same as immediately north of Fairfield. It's about a four foot shoulder with a rumble-strip on it. That's what we would likely be

proposing throughout this corridor. So, where the alignment is OK, that's all that would be done.

Eva Ansett – If a person is already right on the highway and has no room to go, what will you do?

D. James (BRW) – As far as right-of-way purchases?

Eva Ansett – Yes.

D. James (BRW) – This is something to be worked out later with the right-of-way folks. By all means bring that up during this process to let us know where you are and what your concerns are, and all that will be taken into account. But the right-of-way purchase – that whole part of the process will come later. Let me kind of clarify where we are again in this process and what we are trying to do. We are trying to nail down a conceptual alignment. A conceptual design that MDT can start to construct in segments over the next several years. What you will see come out of this process will be kind of the master plan, the general plan for the roadway improvements in the future. Those final right-of-way lines will be determined during final design, and you will have a chance to negotiate at that point. Does that answer your question?

Eva Ansett – For now.

[unidentified] I think the Dupuyer end of the road is the very worst. Like you said before, there's three bridges that are about to fall in the bottom, and I think it would be a wise choice to start on that end, instead of the better road, the straighter road and everything.

[unidentified] Would they start there at all?

D. James (BRW) – That's certainly a possibility – again, those decisions wouldn't be made for quite some time, and - Mick do you want to try to address any of that at this point?

Mick Johnson (MDT District Administrator) – I guess I'll throw out a couple of things, and maybe we can start some additional conversation. First of all, let me address the three bridges. We had the money set aside and in fact, we have got bridge projects programmed for Midvale Creek, Jensen Coulee, and Matchett Creek, . . . and Muddy Creek. We put those projects on hold, and I'll tell you why we did that. We want you to tell us where you want the road to go. And what I'm saying is, if we had built the new bridge at Muddy Creek or at Jensen Coulee, it kind of dictates the alignment of the new road. I'm not going to bypass a bridge two years from now that I built this year. So we put those bridges on hold because we're asking you to tell our consultant what you'd like to see for a road. Now he said something about

we're going to widen the road. I don't know that that's true. If you want the road wider - you tell him. If you want the road so that you can see it from Choteau with binoculars, you tell him that. If you want it to bypass Bynum, you tell him that. If Harriett Hayne wants a rest area north of Bynum, she better tell him that. Because, when they're done, they're gonna write a document that says: "we heard at Choteau that you guys don't care if this road is closer to Dutton." If he hears that, he's gonna write that - our friends at FHWA are gonna sign it, and that's how I'm gonna build it, because that is what you told us you wanted. If you want things like bike paths, scenic turnouts, if you want it to go through Freezeout Lake, tell us that. Tell these guys that, we're paying these guys to write a document that tells us the public wants this. When they are done, we will build what you tell them you want. Just to get things started - with binoculars you can see Choteau. [crowd laughter]

Victor Perkins (Bynum) – I'd like to address him . . . if you're the man that says that these roads from Penroy Junction to Fairfield are deteriorated in the road bed, therefore rather than keep maintaining them, in your opinion we should build new road beds – right? New road beds? OK so that kind of takes that part away from us – that doesn't lie on us now.

M. Johnson (MDT) – No.

Victor Perkins – OK, we got that straight. But the width of the road – so we're going to build a road, so we're going to make it a little wider. But I think what concerns most everyone here is which end of this road are we going to start on?

M. Johnson (MDT) – Tell me.

Victor Perkins – Penroy Junction to Dupuyer. And then the rest of the road we can take our time on because it's serving us quite well right now. If maintenance is too high, why then I think we should do something with it, but I do say though – and this is in jest – that's a great training road from Pendroy to Dupuyer. [crowd laughter] Everyone – the people that live here know that. You straighten it out, a lot of these folks won't buy snow tires for their families then, because they'll be able to take a run at the hill. Now we're safe for people, and that road you never have to worry about inebriated people, the first corner gets em coming either way. [crowd laughter] We have safety on that road and – so there are some advantages to it. I've been driving on it commercially for 30 years – I love it. [crowd laughter]

Virginia Luenstro (Choteau) – I would just like to say it's really great sport to pull a 5th wheel over that road from Pendroy to Dupuyer. If you want a thrill – do it. [laughter]

Leanne Hayne (Dupuyer) – I would like to say that I would really appreciate turnouts for tourists to pull over and take pictures of the Rocky Mountain front. I have many times come up on a tourist basically parked in the highway, out taking pictures, and I

do think that's very important to tourists. The tourist trade in our little communities is very important for them. I also don't want any small communities bypassed. It's essential to their survival.

D. James (BRW) – In the last couple of days, it was probably me and my staff out there parked on the shoulders taking pictures of the corridor – sorry! [laughter]

Les Arensmeyer (Choteau) – I definitely want the highway to go through Choteau. I think this building that we are in would be worthless if it didn't go through Choteau and many others here in Choteau – and our own too. Very important to go through Choteau.

Vicki Baker (Bynum) – I think a lot of the concern for the business that are still left in Bynum is that the road maintain through the town. They don't usually slow down anyway, so it is not going to hit at traffic much. A new bridge would be wonderful. I don't think it does much else. I know – yes, you do have railroad right-of-way up there. It's important for us to maintain our community and I think the highway going through does that for the store, the bar, and the post office. Better maintain that for us at least.

Vernon Larson - I think that the road that is finished from Dupuyer north to junction of 14 is a great project. It's raised up. It really improved that. At least one curve on this end of it, or about halfway in the middle or further to the north, was a pretty dangerous curve - so that road is a wonderful improvement. The height of it made a lot of difference. The one thing about getting some height on a road – you get this snow blowing – it blows across – it don't stop. You get a high grade and the snow blows across it. As far as the lake bottom down here, that road I believe was built in 1941, something like that, and there is a tremendous amount of heavy rock on that road, not just gravel, but boulders, and I think – not that I work for the state highway department – but I think that's one of the least maintenance roads we've got. As far as keeping that road up, I'm sure they've done some work - gone in there and done some patching, there's times it settles and muskrats went underneath and caused sags, but as far as bypassing that road I think that road is a good road.

Jim Salmond - I would like to see the road from Bynum north so I wouldn't have to get a permit every time I headed north.

Mike Madel (Choteau) – I'm only a short timer of 16 years here compared to Bill's 100 years, [crowd laughter] but I've got to drive that route frequently and sometimes at night. I've gone off the road a few times so I really think you should prioritize that section from Pendroy to Dupuyer first, and try to maintain within the existing highway corridor as much as possible. I realize you've got to get out of those curves, that curving section is very dangerous, and I agree with Vicki Baker that you should try and maintain the highway going through the communities.

D. James (BRW) . . . somebody up front there . . . I feel like a talk show host. [crowd laughter]

Ross Salmond – As one of the younger members of the community here, it's an absolute necessity that this highway goes through all our little towns here. To provide an economic base for our businesses in town, and also as – I also work at the bank here in town, and we need more commerce here in town. When this road is straightened out and kept in these communities, we're gonna get more people from the north coming here rather than bypassing us. I think it's an absolute necessity that it's done, and it's done in a good fashion that will maintain it and improve it for us.

Les Arensmeyer – I do think that the corridor from Pendroy to Dupuyer is the first one that should be done. And we enjoy driving through Freezeout Lake tremendously with the birds, especially my wife, she just thinks that's the greatest thing and comments on it many, many times - and I'm sure the highway doesn't do the birds any harm. I was out on 320 with some birds and ol' Oscar Ekstrom was out there watching them one morning – there were millions out there it seems like. I took my tractor and drove through them, and I worked the north end of the 320 acres – he was on the south end watching the birds and they came right back to where they were feeding – didn't bother them bit. They flew up when I moved through with the tractor, but I didn't bother them by working on the north end. So, they're not disturbed by the traffic. I can't buy that.

Perri Lundgren (Choteau) – One part close to town that should be dealt with is the very sharp corner that would lead to go to Eureka Lake. That's obviously too sharp of a corner and I think it should be dealt with, eventually.

D. James (BRW) – That's another point that I should bring up, is that a lot of these intersecting roads come in at severe angles and we will be looking at all of those things. Throughout this process we will be addressing some of the intersecting roads that come in at a really sharp angle, or at bad grades.

Lloyd Stott (Choteau) – I've traveled this highway for many years now and in the summertime, this is one of the most scenic highways east of the Rocky Mountains, the Continental Divide, and it goes all the way up through this area. Many times, different places between Bynum and Choteau, people stop and take pictures of those three hills there with the square tops. I've seen numerous cars stopped there taking pictures. On up through the area, there are lots of places that should be preserved for people to see the scenic Rocky Mountain front.

M. Johnson (MDT) – Are there any other things out there that we should be building the road close to that tourists want to see. If tourism is one of the issues here, are there other things out there that we should be coming close to with this alignment for the tourists to see? Anything out there that we should avoid? I've been in places where we hit the only sweet-water well in north-east Montana. You know, the lady

mentioned the aquifer – these are important things for these people. There's archaeological sites, maybe somebody that's been out here 100 years knows about something out there we sure shouldn't be close to – an Indian burial ground, dinosaur eggs.

D. James (BRW) – We have a project on the West Fork of the Stillwater and we have a rancher down there that remembers the Crow camping on the river there and we sent a team out to survey the area to see what they could find. That kind of historical knowledge in this area, again, is critical to the project. Let's talk about the recreational aspect of the corridor and the scenic beauty. What are your ideas on trying to enhance that aspect?

Jackie Cooney (Choteau) – I'm really with the fellow, whoever it was back there that was speaking of the scenic beauty up there and some pullouts to take advantage of that would be a really wonderful thing. And I would also be in favor of some pullouts along Freezeout Lake, because we like to go down there and sit and watch the birds, and we just don't want to stop because there's no place to pull off.

John Field - The scenic spot on top of the Dry Fork hill where the microwave tower is - I've seen lots of people stop there to take pictures. It would be a good place for a swingout.

Carol Arensmeyer (Choteau) – We have the Choteau Trading Post on Main Street and I have people come from all over about Freezeout Lake, and they will drive from Great Falls to see Freezeout Lake. A couple came up from Lewistown the other day to see the snow geese and they weren't there that day – the thousands and thousands of them – but Priest Butte and Rattlesnake Butte and the panorama coming from Great Falls towards Fairfield is beautiful. It really is a drawing point to our country.

Sherwin Smith (Choteau) – As far as recreational side, one thing because of where I work in the office here, during the summer, I think it surprised a lot of people the number of bikers – pedal bikers – that are utilizing this road because of the scenic nature of it. And the fact that it is more or less off the beaten path. So it may be worthy to look at. Yes you're looking at a four foot border on the road, in a lot of cases in areas of the state where they do get a lot of recreational bikers, they've gone to a six or eight foot border on one side. It may be something to look at.

D. James (BRW) – Any other comments on the potential for a bike or pedestrian path along the roadway?

Joyce Lindgren (Choteau) – I am manager at the Best Western Motel. I would like to ditto what he just said, because we've had biking tour groups from as far away as California that have booked rooms here in groups and come in masses. They definitely travel this road a tremendous amount during the summer time and early spring. It would definitely be a great draw for us to get more of those biking tour

groups coming in. They come to the community and spend money, and we always like that. So I think that is a very good idea.

Steve Nyland (Choteau) – I have the Coast to Coast store in Choteau. I also agree that the bikers are vital thing for us. I've fixed a lot of bikes that have come through, or we've made arrangements for them to be able to get their bikes fixed by getting them driven down to Great Falls or something like that. So I do know there is a good potential for some biking type thing mostly from Glacier Park all the way down through here. So I think that's also a good idea.

Harriett Hayne (Dupuyer) – I have mentioned the rest stop in Dupuyer and I think it's very important that we have a proper rest stop there. We have sort of a . . . makeshift one at this point. Besides the road going to Dupuyer, I think the rest stop is very important. This is a very traveled road and, my goodness, I think 1 ½ years to just look at it is a long time. So, it will be quite a while before we get the road, but I think it is important that we get it as soon as possible.

D. James (BRW) – I should let everybody know, that the rest area up in Dupuyer is part of this study and we will be looking at improvements up there, and whether it should be an all season facility.

Bill Jones – This is a story about scoping. You know when this road was put in back in 1929 and 1930, there was a scoping project that took place to locate the road and there was some would-be politicians and people that had a little influence over in Helena and they were here to scope the road. And they didn't do the job that you folks do, but they had this thing going. Anyway, the road west of Penroy was a good spot to start on because they knew that had lots of things to do with that road. So, the scoping committee – I call it that – were busy standing on the top of the hill on the road that goes into Pendroy now. Some of you folks are familiar with that and know about what it is. Anyway, this would-be politician had to show them the way out of Bynum, and up through the Bynum Flats, and up past Spring Hill, a beautiful corridor for a road all the way up through there just as pretty as you please. No hills, no curvatures, no obstructions - but when he got to the top of the hill west of Pendroy, the story he tells is "I had them looking south but I never them turn around and look toward Dupuyer." [crowd laughter]

Ross Salmond – The grade you would use from Choteau going north – is it gonna be raised a lot from the – I guess my thought is if we get another '64 flood, will it divert floodwater right through the center of town?

D. James (BRW) – That's something that Don Jacobs will be taking a look at. He's the hydrologist on our team. And you know, it's very early to even talk about what kind of grades we are going to be recommending, but it is an integral part of the design and it certainly will be addressed through the process. Don, is there anything that you want to add to that at all?

Don Jacobs (BRW) – I have been looking at that and it seems that some of the floods that had happened prior . . . the water had jumped over the road north of town and down street and it is something we definitely want to look into.

Joyce Anderson (Choteau) – You are talking about the environmental study - Can you use someone else's environmental study? How current does it have to be? Because I think Three Rivers, before they were laying all of their fiber optic cable, they had a study for the whole corridor done. It's been done within the last year and a half, so you may want to contact them.

D. James (BRW) – Great, thank you.

Les Arensmeyer (Choteau) – We have to remember in the flood, the railroad bed was in there at the time and that diverted it south I'm sure. More of it would have gone north. It has all been graded down now.

Paul Balanger (Choteau) – I would just be concerned about something that concerns a lot of people around this part is the noxious weed problem. Any gravel that's gonna be used needs to be made sure that it is weed free and not increasing the problem with landowners. The County and State are trying to take care of it right now.

D. James (BRW) – It is a part of MDT's process. We work with the County Weed Board to address all of those. As a part of this process, we also prepare what's called a Biological Resource Report. It documents all the types of noxious weed that have occurred in the area, and what has been a problem, so there is some active coordination with the County Weed Board to address just those concerns. Thanks for bringing that up.

Jackie Cooney (Choteau) – I was wondering, if there was any thought to do anything with the road down by the courthouse? The way it goes on either side of the courthouse. Is there going to be any kind of change there? Because I think that's one of the most wonderful things about Choteau that makes it unique and picturesque.

D. James (BRW) – Let's talk a little bit about what's in Choteau, what you see as a problem, and what maybe is just part of the character of the town. We will be looking at – as I noted – the high accident rate within the circle here and how it may be associated with the diagonal parking. We will have to look at some alternatives there, but what is the preference? What do you think needs to be done? What do you think needs to be left alone? Do you really like this little jog down here? [laughter] You all live in Choteau, give me some ideas about what we need to do here in town. . . . I heard "straighten the one by the museum."

Helen Rorvik (Choteau) – I think one of the bad things about our highway coming through Choteau is that you have to pull almost clear out in the highway to be able to see . . . that's a real struggle.

Vernon Larson – The road going around the courthouse, especially if the courthouse stays where it's at, is a nice feel going around there. I don't think it's a hazard really. The hazard is on the side of the courthouse where Highway 287 comes in – and that's a death trap. You can't see – you almost should have a big mirror over there so you could see the traffic coming down the road of the main street of Choteau. There is glass over in the library building and the Teton Furniture, but we use that window glass as a mirror because you can see a car coming, reflection, coming down. There has been a lot of accidents right at the intersection at the nursing home.

Dana Rogers (Choteau) – I'm with maintenance, Department of Transportation. Couple of comments: One of them, that Highway 287 coming from Augusta, as this fella mentioned, is quite a death trap at the stop sign. A thought might be to move that intersection and leave the loop around the courthouse. But move that intersection to the south end of town where the new improved gravel road is that goes across the south end and then when you came to a stop sign, you'd have a 90 degree corner in visibility each way. Another comment, like I said, I've worked on maintenance on every inch of this road clear from Two Medicine River clear to Great Falls, and you sure need some wider shoulders in there. You've got those bikers in the summer, you gotta keep the roads going through our towns, so we gotta get some visibility so we can see, especially on the north end of Bynum where the bridge is. We should keep the bridge where it's at, but make the visibility around the corner to the north there, and then we'll keep the people going through the town. We sure need some pull-offs for the tourists, I mean tourists are what brings our dollars in this town – we've got to get more people coming through going to Glacier Park. But we need to straighten some of these roads out and get the commerce to where they can come through here and yet get them slowed down to where we can get them to spend some dollars too.

D. James (BRW) – It's getting on to about 8:00. We'd planned on spending about the first hour just kind of talking with you and then wanted to look at the aerials. So unless I can prod you to ask a few more questions or make a few more comments we'll break and . . .

[unidentified] Just a general question: Do you have anything proposed so far?

D. James (BRW) – Absolutely not. We are out here literally just trying to find out what we should be looking at. We have no preconceived notions about what alternatives make sense at this point. Again, you're gonna make up this project.

John Wisse – Choteau – I wouldn't mind to see a traffic light here in town again because, boy that is a dangerous corner right there.

D. James (BRW) – Request for traffic light in town. Any comments on the diagonal parking in town?

Larry Rulon – Choteau – They just need to eliminate the diagonal parking and they could parallel park.

D. James (BRW) – Request for parking lots and elimination of the diagonal and do parallel parking through town. [crowd grumbles] There we go – that started it!
[crowd laughter]

Steve Nylund (Choteau) – I'm an owner of a business in town and I would thoroughly disagree with parallel parking because it would cut so much parking out on our main street that it would eliminate lots of shopping on Main Street. I know a lot of people in this community really don't thoroughly enjoy parking that way because they're not from a city used to parking like that. Where an angle is much easier to go into and I just think that would be real bad for our businesses.

D. James (BRW) – Additional comments on the parking situation in town?

Carol Arensmeyer - I think most of us don't know how to parallel park any more because we are not used to it.

Les Arensmeyer – I can't see waiting out in a stream of traffic to stop and then back in to parallel parking. That would be dangerous. That would be far more dangerous than parallel parking - even thinking about it.

Shelly Rulon (Choteau) – There's a lot of areas that can be opened up for making parking lots that would make it a lot easier access for your businesses. I know we own the KOA and the RV's can't park down there. If we had some parking lots, they could pull their big rigs in and spend tons of money.

Jim Salmond – Give us a truck route around Choteau so we don't have wide loads coming through their main street and making the curve.

Bob Dellwo – Choteau – The worst thing - get rid of that stop sign in the middle of the street. Make it a regular stop sign and don't have a caution on one side.

[unidentified] That curve never really bothered me, I straighten it out anyway. I just cut right through it. You just ignore the yellow lines.

D. James (BRW) – I won't ask for your name. Any more comments on the issues right here in town?

Vernon Larson – On the angle parking, I think that's okay. I can't see anything really wrong with that, it is a wide highway through there. But the deal where people come to town and they ignore the double yellow line. The main highway ain't quite as bad as up by the post office. I think there should be a law about the solid yellow line that

people do not make a U-turn in the middle of the street. It is a bad thing. I been almost hit at the post office. I walk, and I'm kinda slow. But, I've had twice cars back around the wrong way. I thought I was clear and they almost got me. It's scary. I just about scooped up a car from California with a loader up here at Ginter Hotel - it was at that time the Glen Lloyd. He backed around the wrong way. Well he backed right in front of me and if I wouldn't slowed up, I'd of scooped him right up my bucket.

D. James (BRW) – OK, are we ready to break and look the aerials, or are there any more comments . . . questions? Are there any issues that we are not thinking of or haven't addressed yet? Take a look at our punchlist here and see if there is anything else that we haven't talked about that you think is important in the corridor.

[unidentified] Have you been made aware of the Old Agency up north of Choteau?

D. James (BRW) – The Blackfeet Tribe has been invited to participate in the project as a Cooperating Agency - a reviewing agency. We had a phone conversation with them the other day and they indicated that they felt like they were far enough north from the corridor that they wouldn't be real actively involved. Again, our historic and archaeological team will be out looking at those kinds of sites to find out whether it's a sensitive resource that we need to avoid. So, thank you.

If there are no more questions – again, thank you all very much for coming out tonight – it was great participation. If you have not signed in, please do so, please take a comment sheet, there are some envelopes back there if you want to put those in an envelope. Again, send them to my address on that comment sheet, or to Mick Johnson who's cards are back there on the table. Mick, anything else you want to mention? . . . Fred? . . . Steve? . . . Bob? . . . Anything else you want to bring up? OK - thank you all very much, we'll be back in touch. We'll be sending out a newsletter summarizing what we have heard here tonight, giving you an outline of what's coming up, and what our schedule looks like. Please feel free to take a look at the aerials. Tell me anything you want to up here, but please leave your comments on a comment sheet. Thank you very much.

Meeting adjourned around 9:15 p.m. Several people stayed until close to 10:00 p.m. reviewing the aerials and talking with BRW staff.

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**Choteau Alternatives Meeting
February 23, 2000**

Transcript

Stage Stop Inn - Choteau

Approximately 65 people were in attendance at the Choteau meeting on Wednesday evening. A Project Information Sheet and a Comment Sheet were provided as people entered and signed in. Copies of the sign-in sheets are attached.

Darryl James (BRW Project Manager) began the meeting just after 7:00 p.m. with a general discussion of the project and explanation of where we are in the process. It was explained that the intent of the meeting was to focus on traffic issues within Choteau, and that another meeting would be scheduled sometime in April to discuss alignment alternatives throughout the rest of the corridor. Mr. James introduced the Project Team and handed over the meeting to Chris Vogelsang (BRW Traffic Engineer) to explain the conceptual alternatives developed to address traffic/accident concerns in Choteau.

The focus of the presentation was on: accident locations, reconfiguration of the traffic circle around the Courthouse, realignment/re-designation of 287, intersection improvements at 1st and Main, and the curve at the Deli and Museum.

The forum was opened for comments and questions at around 7:45 p.m. The following provides a complete transcript of the question and answer portion of the meeting.

Paul Wick (Choteau) – I was thinking about the intersection there of 1st Ave and Hwy 89, with the traffic light . . . and you were talking about one potential thing that could be done there would be to bow that out. What does that do to the pedestrian traffic that wants to cross 1st Ave?

Chris Vogelsang (BRW Traffic Engineer) – The question is about the “bulb outs” we showed at 89 and 1st Ave, and what does it do to the pedestrians that want to cross 1st, and not US 89. The answer is – it would be exactly that same as it is today. We didn’t see that as big a problem. US 89 of course carries a lot more traffic, and we’re really concerned about that, and also the heavy truck turning movements. The tighter you make the intersection – narrower is better for people, but not as good for trucks because they can’t make the turn anymore. So, we kind of made a compromise by making a “bulb out” on 89 – that way trucks will still be able to make this turn, it will take care of the sight-distance problems that we think are there, and will help the pedestrians cross US 89. But pedestrians would cross exactly the same across 1st as they do today.

[unidentified] – But a truck with a set of doubles couldn’t turn that corner.

C. Vogelsang (BRW) – That’s one thing – like I said – these are just ideas, and there are some engineering things we still need to look at in detail. We hope we come out of this with ideas, and then we look at whether those ideas are feasible. One of the things we will look at is turning movements with trucks. We actually lay a curve on the design that shows truck radii and where the back wheels track, and we could see if the truck could actually make that turn or not. My gut instinct is that a truck could make that turn, but we’d have to investigate that further.

[unidentified] – Dealing with that same problem, wouldn’t it be easier just to extend that yellow line if that yellow line is 15 or 16 feet long – just make it so the last two cars can’t park there. Then you would be able to see up the street, and seems to me would simplify the problem.

C. Vogelsang (BRW) – Well, that’s another idea – eliminate parking along 1st. Instead of parallel parking or “bulb outs,” couldn’t you just take away two or three parking spaces? Then you could see. And yes, that’s an option that we thought about, but we wanted to preserve as much parking as possible since that was a comment we received earlier. If you did that, it would certainly improve your visibility, but it would not reduce the distance for people to cross, but it would help you make a good decision as a motor vehicle driver on whether to make a left or not. The thing we would have to do there is to find out how far down you can see – how many spaces would we have to take away – so we can see far enough down the block. So that is something we will take another look at.

Mary Sexton (Choteau) – The stop light request that came in from the County and the City jointly was for a transitional stop light, because noon-time seems to be a particularly bad time at that intersection. The seniors park all along there, and that’s really the worst time to come out because there’s quite a bit of traffic and you really can’t see because it’s parked solid as you are heading south and west – so to your left it’s really parked solid. So, that’s what the request was for a transitional light that could be used as a stop light sometimes, and other times just blinking. Just to let you know that was the request.

C. Vogelsang (BRW) – So by “transitional” you mean sometimes of the day it would have red-yellow-green, and others it would flash red – flash yellow the same as today. That’s an idea that has been used a lot in communities, and it is allowed. But think about how the flashing lights work today. Imagine that you are brand new to town, when you come up from 1st and see that flashing red light you know that means stop. What it doesn’t tell you is what signal are the other people getting. Are they getting a flashing red light, or are they getting a flashing yellow light. So a lot of times when you see those types of installations, it makes it less safe than it used to be because people make bad decisions because they don’t know. With a flashing signal, normally, if you pull up you can see the indication for the other street, but sometimes you can’t. Those are just some issues to consider, and I know they have

been used in a lot of communities, and can be pretty standard, but there are some safety issues associated with that would need to be looked at in the design phase.

Mickey Hodgskiss (Choteau) – Just to comment on that, I used to work on that corner. The local people were fine with it, but I've seen out-of-state people stop there even though it's a yellow light, because they don't know what they are supposed to do.

C. Vogelsang (BRW) – Right, that's another thing, a lot of people aren't as good a driver as you would want them to be, and you could actually see an increase in rear-end accidents because you know you can keep going, but all the sudden the car in front of you stops. So, yes, that's a concern.

Bill Jones (Bynum) – I was just looking at your pictures, and these must be fairly new because there used to be an island of safety in the middle of that intersection. We used to have an island in the middle of the intersection at 1st and 89. There was a little fountain and a "welcome to Choteau" kind of thing, and a little statue I guess. That was in 1930. So that was a possibility, but that was also a very accident-prone spot – everybody got crossed up on that thing. They tried to climb over it, they tried to dodge around it, they got stuck on top of it, all kinds of things happened, but that's one of the interesting things about that intersection. And that's been treated with lots of different kinds of amusement and sometimes some pain.

C. Vogelsang (BRW) – From what I've seen from some old pictures, that has been the main intersection in Choteau for as long as Choteau's been around, so I'm sure there have been lots of ideas tried on how to make it better.

Darryl James (BRW Project Manager) – What are your thoughts about some of the alternatives Chris was talking about with the traffic circle. Not only are the trees maybe important to you emotionally - you remember them since you were a kid in Choteau, but they are probably protected under Section 4(f) of the Transportation Act as a historic property, which means we may not be able to touch them unless we can show that there is no other feasible alternative than to take those. So, it's not just an aesthetic or emotional type of response – they could be controlled under federal regulations. So what should we consider? Should we consider a design that would alter that circle to the extent that it would change the atmosphere around the Courthouse, or should we look at something more like a traditional traffic circle that would require out-of-direction travel?

Richard Bigelow (Choteau) – I think we should do something right there near that library because I almost got it today because a lady couldn't see and she backed right out. I hit the brakes, but it had been sanded and I slid right up to her. So if we have to give up some trees, that's a lot better than hurting somebody.

C. Vogelsang (BRW) – Well if we take away the parking on the north end, and don't replace it, we may be able to get away without taking any of the trees. And if the

new Courthouse plan goes through, maybe it's not a big deal because they will develop some other parking. And I agree, from my perspective that intersection is the number one priority in Choteau.

Lucile Lussenden (Choteau) – I think removing the parking there would be a big help.

Janette Rasmussen (Choteau) – I think one way traffic around the Courthouse is the best option. One-way traffic circles work really well in European countries, Australia, Canada – I don't know how come they work, but they sure do. And it would eliminate the left-hand turn. And a lot of people do go that way today, because it's way easier to make a right-hand turn.

D. James (BRW) – Any opposition to requiring a right turn from Division and going south?

Ray Anderson (Choteau) – What would be the possibility of going wider around the curve? You see you've got some space and some area there. And may open up the possibility of parallel parking around the inside.

D. James (BRW) – We have not looked at that, but we talked a little bit about that this afternoon. That still does not allow us to neck down the intersection at the north end and you would still have the sight-distance problem up here.

C. Vogelsang (BRW) – Imagine if you were to pull in to parallel park on that curve, and people tend to travel as close to the inside of that curve as they can, are we creating a safety problem? I think that would be a potential safety problem, but maybe it would work in Choteau, we will take a closer look at that in the next couple of weeks.

Lyle Hodgskiss (Choteau) – If you made the right-hand turn off of 287 mandatory, what would you do on the south end of the Courthouse? You've probably only got room for two vehicles as they yield to north-bound traffic on 89? Would you create a passing lane to get around them if that got backed up?

C. Vogelsang (BRW) – This brings up a discussion about how traffic circles work. In general, the best engineering practice is that traffic in the circle has the right-of-way, and traffic entering yields to traffic in the circle. What that does is defines the rules for people to operate by, and gets rid of the problem you talked about, where a lot of times if people have to yield it backs up the circle and creates a complete gridlock around the circle. So the best practice is to keep traffic on the circle moving. So as you came up north on 89, you would look to your left, and if there were a car in the circle you would yield to that car, and if there weren't you would proceed. So that's how we would propose to treat that. We had talked about that earlier, and realized there may be some confusion and need for education on how a traditional traffic circle operates.

[unidentified] – If we put that Alternative # 3 for the highway coming in from Augusta – down south, that will cause more of that yielding backup situation there.

C. Vogelsang (BRW) – What would happen then is, if you realign 287 down to 7th Street, then we would have more cars coming from the south, heading north through the circle. I guess maybe what would happen then is that those cars would yield to people in the circle, and there would be some delay for those cars that isn't there today.

[unidentified] – However, it may balance out because they wouldn't be coming from the other way.

Leona Heidekoper (Choteau) – I like the idea of the one-way traffic around the circle but why don't you check out the idea of all the traffic going around one side of the Courthouse and having the other side for parking, and tie that in with the pedestrian safety that we were talking about?

C. Vogelsang (BRW) – There's another idea that we could talk about. But we need to ask if we have really solved the problem here at the north end of the circle, and are people really going to understand how it works. Does anybody have anything to add to that idea?

Marsha Hinch (Choteau) – Is there simply room between the Log Cabin and the Courthouse to make that kind of a two-way transition?

C. Vogelsang (BRW) – If that were to move forward, it would definitely provide an advantage for parking, and for pedestrian travel to the Courthouse.

[unidentified] – if you were to go with two-way traffic on one side, you would be obligated to have the left-hand turn from 287 again.

C. Vogelsang (BRW) – Right, what happens then is . . . you would probably have the traffic on the east side, and allow us to move that intersection out and it would not be as big a deal.

Les Arnesmeyer (Choteau) – The big problem with the crowding up on that end is that there's no store there. The street is free up quite a way because there is no store where that garage was, so they get over against it, where if there were a building there they would automatically be moving over. They come through there pretty close to the sidewalk because there is no sidewalk and no building to make them move out.

C. Vogelsang (BRW) – One of the things we could do is build a different curb line through there to direct people where to go. Now you have to be careful with that because a lot of times when you put a curb line where people are not expecting there to be one, they tend to drive over the line by accident.

Bill Jones (Bynum) – I was just wondering, if we are committed to making this junction at this spot at the courthouse lawn. I believe there is a another place that would be better for the junction just south of town. We already have a road coming in on the other side of WSI. Bringing in a junction there, then we've got the whole town without this intersection, we've got 287 and 89 already junctioned together and do as they please from there on (either south or north) from that junction south of Choteau. So, unless we have a commitment to make a junction at this point, I don't think we need to hold our line there – let's move that thing.

D. James (BRW) – Let's make that clear. Let's talk about the 287 alternatives. What does everybody feel about realigning 287, or re-designating 7th Street as the 287 route?

Vernon Larson (Choteau) – If a person transferred 287 further south, you've still got all the residents in this area around the Courthouse that are not going to go clear down to that 287 to get in there, they will still be using that intersection. It's really the traffic from the north causing the hazard, because from 287 you can't see who's coming down Main Street.

C. Vogelsang (BRW) – You're right – just realigning 287, you don't solve the problem.

D. James (BRW) – It takes some of the traffic out, but it's not a cure-all. You're right.

[unidentified] – Why don't you just double that lane around that circle, so you've got two lanes in the southbound and 287 traffic can keep on going, and others waiting to make a turn have their own lane?

D. James (BRW) – So make a right only but add a lane rather than making them merge?

[unidentified] – Right. You've got lots of room.

D. James (BRW) – There's probably room to do that. I don't know why that wouldn't be an option. Did everybody hear the suggestion?

[unidentified] – What are you going to do with the drive-in? Are you just going to wipe it off the map? It sits right on the road.

D. James (BRW) – The Log Cabin? Any alternative we come up with is obviously going to try to avoid any impact like that.

Bob Hodgskiss (Choteau) – If you were thinking about doing a two-lane around the Courthouse, looks quite obvious to me to cut through the Sheriff's parking lot so you ease out that corner there, instead of going around through the Log Cabin on that side. Put parking to the west side instead. Because you've got that parking lot there

next to the Sheriff's office where you could graduate that corner quite easily. The big thing with that corner and the corner down here by the museum is when you've got to moveable load such as a load of cattle or something. You just get started one way and the cattle shift, and then you kick them back another way, and they go back the other way – and it makes it a little bit tough.

C. Vogelsang (BRW) – You're right. With a reverse curve, changing direction and momentum is a little odd. So if I understand your suggestion, if we were to make a two-way road on one of the legs, the east side makes more sense, and we should do something with the lot down here. And we could make an easier curve on the south side.

Stan Rasmussen (Choteau) – OK, if you move 287 to 7th Street, why not . . . since that isn't going to be a major intersection . . . why not abandon 287 from the Methodist Church corner? There wouldn't even need to be an intersection on Main, because that little short chunk of street doesn't feed anything. That could be parking lot for the tennis court, swimming pool - all that's there is recreation. You don't have an intersection coming from the other way, you don't need one coming from this way.

C. Vogelsang (BRW) – That's a great idea, and it's worth talking about.

D. James (BRW) – Is that feasible?

Stan Rasmussen (Choteau) – Sure, there's not a residence – there's nothing – it could all be parking. People beyond there could use 1st or go the other direction. There is nothing on that street, and it would be better served for parking for activities with the swimming pool, tennis court, and nursing home.

C. Vogelsang (BRW) – So would we leave the right turn?

Stan Rasmussen (Choteau) – No. That street would be closed entirely.

D. James (BRW) – Any opposition to that? Anybody think that's a . . . stupid idea – no offense to Mr. Rasmussen [crowd laughter]?

C. Vogelsang (BRW) – Just so you know, we're not making any decisions tonight. We're not voting. We want to get all the issues out and take your opinions back and take an engineering look at how they work, and we'll come back and present what we feel works best and see if everything works for you.

Harold Yeager (Choteau) – 287 coming in by the Methodist Church there . . . is real narrow, so it would make that a lot better moving it down south. And there is a lot of pedestrian traffic in that area. I've had a lot of near misses with kids in that area of town, more so than anyplace else. And you eliminate all that by going to the south. I think that would be a pretty good idea.

Lyle Hodgskiss (Choteau) – The only thing that would do is it'd kick your traffic up onto your high-incident intersection. You know if they chose to go up by the Post Office, you're going to have more traffic up at that intersection. I'm not saying that's bad, but if it's already a problem area maybe you need to consider that in your traffic flow.

C. Vogelsang (BRW) – OK. We'll look at some options there – maybe keeping a one-way movement at Division. Any other comments on the parallel parking issue?

[unidentified] – Forget it. What happens if you lessen the angle?

C. Vogelsang (BRW) – That's a good question. The closer you are to parallel, the better you can see back. The consequences are the more angled you are, the more spaces you lose. It also doesn't really get rid of the problem of not being able to see beyond the vehicle parked next to you. But we will look at that and see if we can make any adjustments to improve that.

Stan Rasmussen (Choteau) – I think that's a better idea than parallel parking, because you talk about the accidents when people back out of a parking space. I guarantee you're going to get a hell of a lot more of them for the person driving down the street deciding they are going to park here and slamming on the brakes and backing into it.

C. Vogelsang (BRW) – The other thing - I kind of missed earlier - is that if it's more angled, when you back out, you don't go as far into the street. And the street is pretty wide there. It may be beneficial if there is more room to maneuver.

D. James (BRW) – I'm not advocating parallel parking, but if you look at the cross section on your handout, if we were to tuck those parking spaces into parallel, you do have almost a full lane of storage where you are not in traffic to make that maneuver. So you do have a pretty wide street and do have some potential for making that movement. But it's going to be different, and you will have some of those problems.

Lyla Armstrong (Choteau) – The only problem with that extra thing is . . . even towards the north end of Main Street . . . you have parallel parking. You get people making it into a four-lane highway right through there, and you try to pull out into that – it's going to cause accidents also.

D. James (BRW) – Good point. You know I think the only place we would have really considered parallel parking in earnest is in that section that Chris was talking about just north of where the loop comes in.

[unidentified] – Then I think you'd be better off with no parking. If you were going to go with parallel parking, you've only got room for four cars there anyway - forget it - let them park out back.

D. James (BRW) – I understand that's a sensitive area. It's in front of the library, you've got the Senior Center there. It's a bad mix of stuff there.

Harold Yeager (Choteau) – That's what I was going to say, it's right in front of the Senior Citizens, so parallel parking is just out. [crowd laughter]

Bob Hodgskiss (Choteau) – Right around that stop light area anyway, is a pretty congested traffic area. One option would be to buy that corner where the old Cornell used to be and make some off-street parking right there. Especially for the senior citizens to get squared around to get back into traffic.

C. Vogelsang (BRW) – That is a good idea. We didn't know how you all felt about that, and I don't know enough about the property ownership issues in town, and if there is space available for off-street parking.

[unidentified] – It's more of who's going to pay for it.

C. Vogelsang (BRW) – Right. And I'm from a pretty small town in North Dakota, and people generally like to park right in front of where they're going, and off-street parking lots weren't very successful in my town, but they have been successful in other places. It kind of depends on if the citizens are behind it. It would need to be within a block of where you wanted to go.

Janette Rasmussen (Choteau) – One area where that worked real well, was when the Methodist Church put one in. And that worked really good. It was the Church parking lot, but whenever there's an activity going on at the Church you could use it. There used to be a house sitting there, and now it's parking.

[unidentified] – Are you aware of the seasonal difference in traffic volumes through Choteau.

C. Vogelsang (BRW) – We understand there is a seasonal variation in traffic and that the summer has a lot more traffic than say this time of year, and it's also people who are unfamiliar with the town. Which is really why these issues we are talking about are even more important. Because if it's just people living here using it, you get used to things, and you tend to drive them differently than if you are brand new. So yes, that's definitely something we are considering and definitely will have in the back of our minds as we develop these alternatives. Any other questions or comments? If you are too shy to ask your question, feel free to come up afterward and we can talk about it. You can write a comment on your comment sheet, and those are real important to us too.

D. James (BRW) – These have all been softball questions, and we haven't talked at all about this curve up here yet. And I know everybody's got an opinion about this

curve. [crowd laughter]. Can we move on to talk about that one – unless there's anything else about the traffic circle, or parking, or 287 . . .

Lyle Weist (Choteau) – That curve up north was designed so they could get more parking, but we've got cheat grass in the middle of Main Street instead of parking. I drive a truck down that road a lot, and it's almost impossible to keep that whole truck in my lane of traffic heading south to come around that curve without off-tracking into the northbound lane.

C. Vogelsang (BRW) – We've heard that from a few people that are pulling trailers and big rigs, and we've actually noticed that in the corridor – just watching the way people drive through there. It's not a very desirable condition.

[unidentified] – How many accidents have we had there?

D. James (BRW) – Let me just say, when we looked at this, and we look at the accident data, as we look at the design it's not something that really violates a design standard, it's not something that shows up in the accident data as a horrible area. It violates driver expectancy, and people are not driving it the way it's designed and built. They are driving over the lane lines, so something needs to be done. We've got to find a way to make it operate a little better. We can't just ignore it and say "I can get through there so it's not a problem . . . no one has been killed there - it's not a problem." It's an issue that we need to discuss and we need to talk about some options.

Sherwin Smith (Choteau) – I was involved with moving the road. Several reasons why it was moved: The old road did not sit on the highway right-of-way, it was on private land, that was one major issue, parking was another one. Safety was another big factor. The intersections that used to be there – there were two of them. Everybody used to shoot down past the school for 287. The accident rate I can remember from our work with the Highway Department before we did that was 3 to 4 accidents a year there. I don't know if we've had one since it was altered. The curve is much more abrupt than we thought it was going to be. But in talking with the engineer out of Great Falls who designed it, he says it was engineered that way on purpose – it's called a speed control. One of the biggest problems we see is people coming into town from the north having trouble slowing down. They aren't slowing down to the speed limit.

Vernon Larson (Choteau) – On that parking up at the Museum, the way I understood it – I wasn't involved in the planning or anything – was to create more parking for the Museum by moving the road over. Would it be possible at all to get more parking space on the other side of the Museum, between the Museum and the railroad track? That railroad is pretty much abandoned in Choteau.

Sherwin Smith (Choteau) – It's all BLM land. We tried. It's within 12 foot of the back of the building.

Bob Hodgskiss (Choteau) – If one put the highway back where it was, got rid of those grass strips there in front of the Museum – landscaping is nice, but you've wasted a lot of parking there – but if you put the highway back where it belonged, took the northbound traffic on the school street and had it turn to the right at the north end of the Bella Vista at a 90 degree corner – take and get rid of these bumpers – you could put in angled parking in that area for both northbound and southbound travel. You could accommodate RV parking in that area, and still have car parking on the other side by the museum.

Les Arensmeyer (Choteau) – Getting back to that, we were told how many parking spaces we had to have. It isn't a case of it looking right, or doing right, if you're going to do this . . . well I was told you had to have so many parking spaces.

Sherwin Smith (Choteau) – No.

Les Arensmeyer (Choteau) – Then what did we do it for?

C. Vogelsang (BRW) – The only thing I would be concerned about with that idea is that we've heard about the Deli on this side, and the Museum on this side, and people are crossing over a lot. We need to look at whether that is safe.

D. James (BRW) – Is it safer on a straight or a curved road?

Bob Hodgskiss (Choteau) – You could do that without completely straightening the road. If you just took the berms out that they've got grass in now, you can fix the curve and not bother the parking at all.

C. Vogelsang (BRW) – Right, we were out there and you can stand and see the edge of the road, and where it used to be. But maybe we could reduce the severity of the curve, since it's more severe than was intended anyway, and we could maintain the parking. We will continue to develop some alternatives to balance those concerns.

Lyle Weist (Choteau) – The real challenge there is people backing up from the Deli when you've got to curve towards it. Get rid of the cheat grass in the middle of Main Street so that you could straighten that out a little bit. But you're watching on a curve and two parking areas – it's . . . and then stay in your own lane.

Paul Wick (Choteau) – I think we've already touched on it a little bit in terms of the idea behind the curve, also being to slow traffic as it comes through town. If whatever mechanism were used were moved further north, leading into town, it would solve a couple of the problems of people wanting to cross the street right there. But I guess we

still need to take that into account if we straighten the road that we still need some kind of mechanism to slow the traffic down.

C. Vogelsang (BRW) – I don't know the answer to that issue right now. But that's a great point. If part of the intent was to slow traffic down, we'd definitely look at what happens if we make this straighter. The other thing is, is it really slowing traffic – I don't know.

[unidentified] – No!

Richard Johnson (Choteau) – I was thinking about slowing traffic down, and there's a place out of Conrad where you're coming from Great Falls on the old highway, and they have those ripple bars or whatever in that curve. If you put some of those out here by the veterinary clinic every so many feet apart, I think that would slow your traffic down.

D. James (BRW) – What's the policy on something like that coming into town, Mick?

Mick Johnson (MDT District Administrator) – We could do that.

Harold Yeager (Choteau) – I guess I would be in favor of straightening the curve to some degree, moving the speed limit down to 25 mph, and both with Lyle Weist's suggestions and Bob Hodgskiss, I think those are good ideas, and it still doesn't take away from parking at the Museum.

Sally Haas (Choteau) – Why not reduce the speed limit sooner on the north end of town?

C. Vogelsang (BRW) – That's a possibility, and it's kind of a typical response when people are going too fast. The real response to that is pretty minimal. Signing doesn't usually make people change their behavior.

Sally Haas (Choteau) – Right, but we all have driven through Fairfield in the years when the speed limit was 25 and we all slowed down to 25 because they nailed you.

C. Vogelsang (BRW) – Well there you go – that's when it is effective if there's enforcement. If the speed limit is 25 and they know that 10 percent of the time there is an enforcement officer there, then it can be effective.

[unidentified] – Have you ever tried to turn a southbound truck off 89 to 7th Avenue? Try it sometime, it's impossible to turn a 50 foot trailer off 89 and go down 7th Avenue.

C. Vogelsang (BRW) – Now what I understood from the Mayor earlier today, was that there was a local ordinance that prohibits large truck traffic on that segment of 7th Avenue. But we will look at it from the standpoint of school buses making that turn.

[unidentified] – At the first meeting there was a suggestion that a truck by-pass be looked at around Choteau. Was that considered?

D. James (BRW) – We’ve not really looked at a truck by-pass. Most of the comments were more along the lines of “please don’t bypass us, that would only hurt our struggling communities.” And we are not really finding a lot of geometric issues on this route that we can’t correct that would say we have to look at something else. If we were in that situation, I think we would take a more serious look at that. I think it’s safe to say that we are not really in that position at this point.

[unidentified] – No, it was just brought up.

C. Vogelsang (BRW) – It looks like everyone is getting restless, so thank you for coming, you’re more than welcome to come and talk to us one-on-one, or look at the exhibits. We really appreciate the input, honestly, we take them very seriously.

D. James (BRW) – Let me just close in saying thanks for your continued interest and participation, and remind you that we will be back in April to present more refined alternatives here in Choteau, and to talk more specifically about alignment alternatives throughout the rest of the corridor. You can expect a postcard sometime in mid-to late March to let you know when we’ve scheduled that meeting. Please fill out a blue comment sheet and leave them here tonight or mail them to me at the address on the bottom. Thank you.

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Conceptual Alternatives Meeting(s)
May 2 and 3, 2000

Transcripts

May 2, 2000
Dupuyer Community Hall

Approximately 35 people were in attendance at the Dupuyer meeting on Tuesday evening. A Project Information Sheet and a Comment Sheet were provided as people entered and signed in. A copy of the sign-in sheet is attached.

The meeting began with an open house format at 7:00 p.m. The presentation began at approximately 7:30 p.m. with a brief description of the project and explanation of where we are in the process. The definition of the project Purpose and Need was presented along with the Evaluation Criteria to be used in the analysis. Conceptual alignment and cross section alternatives were illustrated and explained.

Many of the attendees began to ask questions during the presentation. The following provides a general account of the questions received and answers provided. No separate question and answer period was conducted, and no tape was made of the questions. The following was derived from notes taken by BRW staff.

John Holden (State Representative) – Why do we have 160 foot right-of-way? Is this wide enough to widen to four lanes, and is this the purpose eventually? With 160 foot right-of-way you will be impacting unnecessary amounts of farmland.

Darryl James (BRW Project Manager) – There is no intent to widen to four lanes. The intent of the project is to make some geometric improvements and add shoulders to address capacity and safety concerns. We don't see the need for additional travel lanes based on the travel forecasts at this point.

[unidentified] – Is the right-of-way the same for all three cross section alternatives?

D. James (BRW) – Yes.

[unidentified] – The traffic count on this road has been down as a result of the road's condition. I recommend a 32 foot cross section. In winter, this will add the extra width for safety and visibility. This alternative is more feasible in the long run.

[unidentified] – Do they ever consider building a single bicycle lane on one side of the roadway?

D. James (BRW) – I would not recommend that. You want some consistency in design so the driver knows what to expect. You also don't want to create a situation where the bicyclists are required to cross the roadway to be in the bike lane, and travel in an opposite flow direction.

Helen Campbell (Pendroy) – The road north of Dupuyer doesn't have bike lanes, and there are a lot of bicycle tourists because of Glacier Park. The road is not safe for bicyclists and there is no place to pull off if you need to change a tire. It's a bad idea to have such a narrow road. What is the cost per mile for the 28, 32, and 36 foot cross sections?

Mick Johnson (MDT Great Falls District Administrator) – The cost of the cross sections is approximately \$750,000 per mile for the 28 foot, \$850,000 per mile for the 32 foot, and \$1 million per mile for the 36 foot.

[unidentified] – Providing pull-outs will bring more people into the area and allow them to get out and take pictures. Has there been any consideration given to passing lanes?

D. James (BRW) – Most of the improvements we are showing would not require passing lanes because they include both horizontal and vertical curve improvements. The grades would be adjusted to eliminate the need for climbing lanes wherever possible. That will certainly be a consideration as we continue to refine the alternatives.

[unidentified] – Are improvements to 287 from Choteau to Augusta a consideration?

Mick Johnson (MDT) – That stretch is not part of this project, but there is a design in process, with a 2004 construction schedule.

Aaron Utsler (Dupuyer) – What is the projected date for construction between Fairfield and Dupuyer?

Mick Johnson (MDT) – We are looking at 2004 at the earliest. Right-of-way needs to be purchased, the EIS completed, contracts signed, etc. This all takes time, a minimum of four to five years. This project is also currently not funded.

Harriet Hayne (Dupuyer) – Please address the upgrading of the rest area north of Dupuyer.

D. James (BRW) – We will be taking a look at the rest area this summer. We want to get some traffic counts and see what type of users you currently experience. I know I haven't been able to give you much information over the last few months, but hang in there, we will get started within the next month.

May 3, 2000

Stage Stop Inn - Choteau

Approximately 55 people were in attendance at the Choteau meeting on Wednesday evening. A Project Information Sheet and a Comment Sheet were provided as people entered and signed in. Copies of the sign-in sheets are attached.

The meeting began with an open house format at 7:00 p.m. The presentation began at approximately 7:30 p.m. with a brief description of the project and explanation of where we are in the process. The definition of the project Purpose and Need was presented along with the Evaluation Criteria to be used in the analysis. Conceptual alignment and cross section alternatives were illustrated and explained.

The forum was opened for comments and questions at around 8:00 p.m. The following provides a complete transcript of the question and answer portion of the meeting.

Darryl James (BRW Project Manager) – It's about 8:00 pm, so I'd like to take questions for the next half hour or so then encourage you to come up and take a look at the aerials and the cross sections – then leave your comments on those. Again the ground rules: please, please provide your comments on the brown comment sheets and leave those with us so that we can make sure we are accurately receiving and reporting your comments. Also, I'm going to walk around with this mic tonight, so if you would, just give me your name and where you're from and we'll take your comments and see if we can answer your questions.

Does everyone understand the basic statement of Purpose and Need? Is there anything that you think we're missing in trying to identify the problems in the corridor and in what needs to be done to make some improvements?

I remember some of your names so I will start putting you on the spot to get things going.

Jim McCollum (Great Falls) – Why is there a 20 year time period for the study? That's really not a very long period of time – why not look at 30 or 40 years?

D. James (BRW) – The 20 year time-frame is basically set up through the NEPA process. It is a standard time-frame to look out beyond the design year. Most of your socio-economic data is limited to 10 and 20 year increments, so it makes it pretty difficult to do any traffic projections or anything much beyond that period. So it's a reasonable forecast and if you get much beyond that you're really just guessing – even more so than we may be within the 20 year timeframe.

Bill Jones (Bynum) – I was just thinking we have about the best scenic value here of anyplace in the world, and I don't see anything on this that says "maximize the

scenic value.” And I was just wondering if that shouldn’t be one of the things to include to evaluate the alternatives.

D. James (BRW) – OK, good. I’m not sure if that’s part of the Purpose and Need for the project, but it should definitely be one of the Evaluation Criteria. We need to make sure we are enhancing the corridor rather than just building something that is flat and straight and starts to look just like I-15. That is an important consideration.

Mayor Jim Kelly (Choteau) – I’ll just comment briefly on the alternative to by-pass Choteau. I think all the input that I’ve heard has been very vocal, and speaking for the people of Choteau, we would like 89 to continue to go through Choteau, and we would probably jump up and down and protest vigorously if they try to get away from our business district with the highway. So I want to go on record to eliminate the alternative to by-pass Choteau.

D. James (BRW) – Thank you Mayor. Let me just speak to that briefly. We were here in February talking about some of the alternatives here in Choteau – we’ve got this funny little curve here at the north end of town, we talked about some alternatives around the Courthouse, and we talked about realigning 287 onto Pig Alley down on the south end. I think we had a lot of support for realigning 287, looks like we will forward that alternative. We are still looking at how we maybe optimize the roadway here at the museum and deli, and then we are still developing some alternatives around the Courthouse – we will be working with the County and find out what the plans are for renovation and construction of the new police station and jail. So those are progressing, we’re still doing some traffic studies – the County had requested a signal warrant study – I talked with the MDT traffic folks a few days ago and that is slated for mid-June, so they will be out to get that underway and it will take a few months to complete that.

Rep. Sam Rose (Choteau) – I have a question for the Montana Department of Transportation: What criteria do you use when you by-pass an incorporated community. I may be wrong, but I think there is a statute that deals with some of that.

Fred Bente (MDT) – I guess the answer is fairly simple – you know somebody brought up the issue of bypassing the town therefore that was given to the consultant to evaluate. I believe what the statute says is that if you have an incorporated town and it passes a resolution opposing by-passing – that’s the end of it.

D. James (BRW) – From the standpoint of our study and what we’ve seen, there’s not an engineering reason or a traffic reason to forward any by-pass alternatives. We heard a request for a truck by-pass around Choteau. The only reason to forward that would be if we could not provide the geometric improvements that would provide safer passage for trucks through town. We think we can do that, so there’s really no reason to even carry that any further. I think we’ve also heard a number of times that

no one wants to by-pass Bynum – they’re already struggling to get something going there. So I think the bypass alternatives are . . . we’ll take a look at them, but I think they are basically dead alternatives.

Bob Stromswold (Pendroy) – What about the safety factor here in town. There’s no stop light, everybody goes sailing right through here, that’s a real hazard. You need to have a stop light or something to control that.

D. James (BRW) – Mr. Stromswold was asking about a traffic signal here in town, and that’s what I was alluding to earlier – the County has requested a signal warrant study. The Department of Transportation will come up and do some traffic counts to determine if it meets warrants – and I can’t really elaborate on what the threshold is for installing a signal, but we will go into detail on that study at a later meeting. But that study has been requested, it will begin in June and will take a couple of months to complete. So we will be looking at the feasibility of installing a permanent signal at that Main Street intersection. Or we could put another kink in the road [crowd laughter].

Vernon Anderson (Bynum) – Just a question – if it requires a 160 foot right-of-way, what does that do through town?

D. James (BRW) – I need to point out that the 160 foot right-of-way is only in the rural sections, it is not through the towns. Through the towns, we will basically be going curb to curb and not acquiring any new right-of-way in town in either Bynum or Choteau.

Billy Walker (Bynum) – My question on this alternate route for 287 – have you considered just moving 287 north one block and putting a stop light on that intersection to keep them trucks from having to turn three times in town?

D. James (BRW) – The main concern about going north was the safety concern with the school on the west end of that street. There was also some concern about land uses along that route, and the fact that we would be taking another block of Main Street out of the main flow of traffic from 287 and the business owners were not real excited about that. So, we did look at that but it did not receive a lot of support. We will have a more detailed discussion and accounting of that issue at an upcoming meeting.

Ottis Bryan (Choteau) – What happens to the existing highway when you by-pass it?

D. James (BRW) – It depends. Sometimes it will go back to the County to maintain, sometimes it’s obliterated entirely, it could be a local access road that you maintain privately. It depends on the length and the purpose it serves. Most of these we are showing would be obliterated and we would have to extend access roads out to the new alignment. That would all be part of the alternative. We can talk in more detail

if you want later to find out what your specific concern is, but the long and short answer is – it depends.

Paul Belanger (Choteau) – Two things: would there be any funds available since the highway is going through town for enhancing sidewalks or other downtown facilities such as that; and the other is north of town on securing right-of-way along the railroad tracks and possibly putting a bike path along there. I know south of town it is still being used, but I don't know what's going on north of town.

D. James (BRW) – Currently we are not looking at any sidewalk or curb and gutter type improvements through town. That is something that MDT could take a look at, but that is not currently part of the scope of this study. This is really more of a corridor or alignment study and safety improvement project, but it is certainly something that we can talk about with MDT and FHWA later in the process as it gets closer to design.

As far as a separated bike path – we thought about that, and the feasibility of maintaining that kind of facility was our biggest concern. You are going to have trouble with snow removal and general maintenance year-round, and the question of who maintains that is also a concern. If we can maintain a roadway cross section throughout the corridor that provides enough room for the bicycles, that is probably our preference at this point. But if this is something that people want us to take a detailed look at, we can do that – but again, it just didn't seem like the most reasonable approach at this point.

Can we talk about the cross sections? Does everyone understand the difference between the cross sections?

[unidentified] - Will there be one cross section for the whole corridor?

D. James (BRW) – I don't know that there is a yes or no answer. Fred, do you have any feel for whether we need to stick with . . . let me back up, the route segment plan that was developed several years ago identified two different cross section widths in this corridor based on average daily traffic volumes. While it is feasible to do that, it is probably not preferable if we have the money to construct a consistent roadway throughout the corridor. Once you put something out there, you begin to build the driver expectancy for that width, so you don't want to narrow that down too much. For instance, if we were to provide for a bike facility, we would want to provide that throughout the corridor. So, at this point, I think we would suggest one cross section for the entire corridor [in the rural areas].

Billy Walker (Bynum) – With that 36 foot cross section, have you got room on both sides to pull off and take pictures?

D. James (BRW) – OK, with the 36 foot cross section, you've got a full six foot shoulder. You would have a one foot rumble strip about a foot from the fog line, then another four feet beyond there that could be utilized by bicycles. So, yes, there is plenty of room to pull off and take pictures or store a broken-down vehicle. We will also want to identify some areas for formal scenic pull-outs, so if you can provide any observations on where people are doing that now, please let us know and we will try to include those in the design as well.

[unidentified] – What happens to the bikes north of Dupuyer where the shoulder narrows to two feet?

D. James (BRW) – They're all going to stop at Harriet Hayne's newly improved rest area! [crowd laughter] Seriously, that's a good question. We've heard some complaints about how difficult it is to accommodate bicyclists in that area, but it's a newly constructed segment and would not be worked on again for some time. One thing to keep in mind is that segment is much flatter and straighter than what you have in the northern portion of this corridor, and probably does not have the scenic draw that the Freezeout Lake area has. You bring up a good question, and it is something I will have to take some time to address a little later. Thanks.

Vernon Larson (Choteau) – In regards to the bike path or route, I think that's really important. A person who travels that road a lot during the summer would be surprised how many bikes there is on that road. I think the four foot shoulder would be sufficient.

D. James (BRW) – Is that in preference to the 36 foot width with a six foot shoulder?

Vernon Larson – No, I mean the 36 foot – right.

Stan Rasmussen (Choteau) – So in essence then if we went with the wider corridor or 36 foot, that answers Bill's question about the availability of being able to pull off and view the mountains, so we're killing two birds with one stone aren't we?

D. James (BRW) – Exactly.

Ross Salmond (Choteau) – When you get to the point where you're pursuing right-of-ways and you end up going and purchasing some of these land owners, how do you establish that value, and then the right-of-ways that go back to people, what do you end up doing with that? Do you sell it back to them?

D. James (BRW) – Question on the right-of-way process – Fred do you want to field this one?

F. Bente (MDT) – Now recognize that right-of-way is still some distance down the way. Right now we are doing the EIS and a Record of Decision should be done sometime

early next year. At that point we would start considering this project for construction. That means we would do design, acquire right-of-way, move utilities – that could be four to five years after the Record of Decision, so we are talking about 2005 to 2007, that time period. Plus, this will probably go as several projects – it's a 40 to 50 mile corridor, and will likely be broken down into three 15 to 20 mile segments for construction. Once a project is fully designed then our right-of-way agents go out and do an appraisal – fair market value, which is a comparison of what other parcels of the same size are being paid for in the area, then they come out and negotiate with you. That's the general procedure.

D. James (BRW) – Does that answer your question Ross?

[unidentified] – Half of it. He asked the question, but what do you do with the land you abandon?

F. Bente (MDT) – It tends to vary. If we have a use for it, we tend to hang on to it. If we are moving an alignment away, we really don't want the old land. We will get rid of stuff we don't need.

Bert Guthrie (Choteau) – Will you restore it?!

Rick Rust (MDT District Design Supervisor) – That is the one thing that we never really touched on. When we go through and we do not reuse an alignment, we do what we call "obliterate" the alignment. Part of our obliteration means that it has to be brought back to the natural contour. All the old surfacing has to be removed, and that is part of this process. It will be completely re-done. It's not like the old days where they just broke up pavement and walked away. That doesn't happen any more.

D. James (BRW) – You all are being far too easy tonight. I'll take this to mean you like all the ideas and we can basically wrap this up and finish our document.

Jim McCollum (Great Falls) – What is the current width of the right-of-way through the rural areas?

D. James (BRW) – It varies widely. Again, the road was constructed 70 years ago - the right-of-way was handled differently in different areas – in some areas, the adjacent railroad alignment was purchased, so we may have a pretty wide right-of-way, in others it may narrow considerably. There is no standard right-of-way width through the extent of the corridor. So, I can't really answer the question but to tell you we will likely require new right-of-way throughout most of the corridor.

Bert Guthrie (Choteau) – A lot of the right-of-way on Highway 89 is on County right-of-way which is a 60 foot right-of-way. OK?!

D. James (BRW) – As I understand it, most of it is probably on an easement owned by the County and maintained by MDT.

Bert Guthrie (Choteau) – But it's 60 feet.

D. James (BRW) – Again, I'm not sure that's typical throughout the entire corridor. But we will check that further as we develop the detailed alternatives and begin to look at right-of-way needs. Any other clarifications I need to make.

[unidentified] – Don't by-pass Bynum [crowd laughter]

D. James (BRW) – I think I've heard that once or twice before – maybe we shouldn't by-pass Bynum [crowd laughter]. Again, from an engineering perspective, there is no reason to by-pass Bynum. You'll see an alternative up here that tries to put the alignment and a new bridge structure on a better tangent across Muddy Creek. That seems to be the better alternative at this point, because we can do what we need to from an engineering standpoint, and would be far less impactful to the community. So that is the alternative that will be forwarded for detailed analysis.

Ottis Bryan (Choteau) – Does anyone know the width of the railroad right-of-way?

D. James (BRW) – I don't. I've contacted MDT's right-of-way and utilities folks several weeks ago to see what we could find out about ownership, and was told that it would be a month's-long process to find out who owns what at this point in the corridor. So we have that process moving, but I don't have any details at this stage.

Dorothy Perkins (Bynum) – What is the difference in the cost when you change the width of the road from say the 32 to the 38 foot road? Is there a big difference in the cost?

D. James (BRW) – Dave, do you have the figures that Mick gave us last night. I don't think it was a substantial difference.

Dave Kelly (MDT) – The 28 foot road will run you about \$700 to \$750,000 a mile, the 32 foot will run about \$800 to \$850,000 a mile, and the 36 foot would run about \$1 million a mile.

D. James (BRW) – OK, so you can tell I'm used to dealing with big numbers on these projects. [crowd laughter] In the grand scheme, it's not a substantial difference in the overall cost of the project. It will be a small percentage of the overall cost.

[unidentified] – Do all of these alternatives meet with federal standards?

D. James (BRW) – Yes, the 32 and 36 foot meet federal standards as they stand now, however, the 32 foot does not meet AASHTO guidelines for providing for bike and pedestrian accommodation.

[unidentified] – The 32 foot does not include a rumble strip.

D. James (BRW) – The 32 foot *does* include a rumble strip, which is what kind of pushes the bicyclists out. It's a four foot shoulder which is what is recommended by AASHTO for bicyclists, but once you put that rumble strip in there, it only leaves about two feet for bicyclists. That's the difference.

[unidentified] – When we have the higher volume of travel through here, we're going to be a lot better off.

D. James (BRW) – I'm sorry, so you're saying with increased traffic volumes we'll be a lot better off with the wider cross section, ultimately?.

F. Bente (MDT) – I just wanted to comment that there are various trade-offs. The wider the road, the more expensive. The more expensive, the longer it takes to collect the money to build the facility. We are not really far enough along in the process to figure out how much each dollar amount would delay a particular segment of road, but it is something to keep in mind. Another item that was not brought up before is that the four foot shoulder – the 32 foot roadway actually provides a four foot shoulder – the issue comes up with the rumble strips. If you put a rumble strip in, the bicyclists have a problem. On the other hand, safety studies have shown that the rumble strip does provide safety improvements for cars. So, there are options, but trade-offs.

[unidentified] – If we built a 28 foot road and then in a few years came back and made it 36 foot, what's the cost?

D. James (BRW) – It's basically a full reconstruction project at that point.

F. Bente (MDT) – The practical effect is, most of the time when we build a road we're probably not coming back again for another 40 to 50 years. So most of these roads were built a long time ago, and we're finally getting around to reconstruction. Once we build it, that's what you've got because there isn't enough money to come back right away and change it.

Vernon Larson (Choteau) – I think on straightening that road out that any tourist that's going through here and travel that road to Glacier Park – possibly one trip through there just about make up their mind to go around to I-15. If we can straighten it out as much as possible, we can bring more traffic through here which will help the community.

D. James (BRW) – Is that maybe an evaluation criteria that we need to add – to try to encourage the tourist travel through the corridor. Yes? OK. We'll add that to our evaluation criteria.

Dorothy Perkins (Bynum) – If we compromised and built the 32 foot instead of the 36 foot, what would be the difference in years we would get our road sooner?

D. James (BRW) – We're still looking at a project that will not begin for four or five years at least. It's not going to buy you much time on the front end.

[unidentified] – How soon will you decide which alternatives you will pick?

D. James (BRW) – Over the next couple of months, we're going to take the environmental impacts – things like farmland impacts, socio-economic impacts, wetlands, cost – and try to balance those concerns to come up with a preferred alternative, which again is one that meets all our criteria and balances those concerns. We'll bring that back out to a public meeting and ask for your comments on those – at that point it will be identified as the preferred alternative in the Draft environmental document. So, we're probably looking at two or three months out before we have enough detailed engineering drawings to be able to make those findings. Does that answer your question?

Unless there is anything else, I'm going to suggest that we break so you can take a look at the aerials. Please leave as detailed comments as you can so we can evaluate the alternatives fairly. Let us know if we're headed in the right direction with these, or if we need to be looking at additional alternatives or if you have a preference on the ones that are shown. Rick had another comment.

Rick Rust (MDT) – Yea, with the one question on the cost of the project and how it could affect the . . . how many sections could be built or whatever – right now, as it stands they have a \$10 to \$12 million cap on how much they will let the project for. That's because of the amount of money the contractors have to be bonded for and also because of the fact that if we programmed a project and it falls through and doesn't get let, then we have to dig up that many more projects just to replace it. Perfect example on one project that is going to be let here soon, it was a \$17 million project and they made us split that project, so it's actually two contracts. So, the higher the cost of the project, the shorter the sections are that are going to rebuild – by the limitation of a \$10 to \$12 million cap.

Rep. Sam Rose – (Choteau) – You know part of increasing traffic through Choteau – with the conditions now, most of the traveling public sees one less route through this area because of the condition of the roadway. I just see the need and it would be a major improvement for us.

D. James (BRW) – Thanks. Let me throw these evaluation criteria back up here real quick. So, we're going to add enhancement of tourist travel. Is there anything else that we need to consider as we evaluate these alternatives?

Question in the back on timeframe of the project start to finish. Again, the environmental document – this whole process will wrap up in early 2001. At that point, Federal Highways will give us the go-ahead for final design and to begin purchasing right-of-way. Right-of-way will probably take a few years, even for just one segment of the roadway. This will probably be broken into at least three projects. Something else we have heard pretty loud and clear is that the northern end really needs to go first, and there's no reason to not begin there, so that's the way MDT will likely approach construction of the project. If everything were to fall into line, and we secure funding for the project, it probably would not start until 2005 – 2007, at the earliest.

[unidentified] – If it takes that long, what is the increase in cost that would result?

D. James (BRW) – Alan Greenspan is not here to answer that question [crowd laughter] so I really have no idea right now how to forecast that increase in construction and right-of-way cost. It will undoubtedly go up, but I couldn't say to what degree.

Bill Jones (Bynum) – I was just wondering, if we're gonna wait five to seven years before we're gonna get this new road, are the provisions to get this one in shape so that we can at least use it?

D. James (BRW) – That's a good question. We had a couple of bridges out here that were slated for replacement, and basically had bridge designs ready to go but once we started looking at the corridor we said "wait a minute, maybe we need to move the alignment." We don't want to build a bridge and have a new roadway that's 200 yards away from where we just put in a new bridge. So there are small projects that may be able to go forward before full reconstruction. It depends on the size and scope of those projects, but there are definitely some spot improvements that could be made prior to full reconstruction.

Cliff Sullivan (Choteau) – In seven years, will you be starting at the northern end, or would you be starting right here?

D. James (BRW) – The full reconstruction would probably start somewhere around the Pendroy Junction and north.

Cliff Sullivan – So it could be 12 to 15 years before you come into Choteau.

D. James (BRW) – I don't think it would lag that far behind the first segment, but at this point because there is no funding identified, I really just don't know.

Cliff Sullivan – But definitely more than seven years.

D. James (BRW) – More than seven years. Again, there are spot improvements that could be made, we've talked about some things right here in Choteau that could be improved in the short term.

Cliff Sullivan – My thing is, a lot of these businesses would like to have all the traffic this highway brings. I'm in the position where I don't want improvements. I want this highway as far away from my house as I can get it. So when you think in terms of seven years . . . but when you're looking down the road 12 to 15 that's quite a bit different.

Britney Bingham (Pendroy) – I fully agree that we need improvements, but as we look at some of the alternatives, you're really segmenting farmlands . . . [inaudible].

D. James (BRW) – That's one of the alternatives, and farmland impacts are a concern. Anything else. I knew if I waited long enough you would ask more questions. There have to be a few more out there.

Jim Schwedhelm (Choteau) – What happens if Sylvia decides she doesn't want to sell right-of-way on her land and sits out there on the line with a shotgun [crowd laughter] What's to keep from that?

D. James (BRW) – Fred, do you want to handle the eminent domain question?

Dave Kelly (MDT) – Again, we don't have any right-of-way to discuss at this point, we can talk about condemnation once we get final approval of the environmental document.

D. James (BRW) – We'll have some detailed information at the next public meeting when we show the detailed alternatives, that will outline MDT's right-of-way acquisition process. If Sylvia's out there with her shotgun, that's when we bring in the right-of-way agents to handle those questions.

Rep. Sam Rose (Choteau) – What would you do if you ran into a tee-pee ring? [crowd laughter]

D. James (BRW) – That's actually a good question. You may have seen some people out in the corridor in the past couple of weeks. We've got a firm involved in the project that goes out and looks for just those kinds of things. They've been out looking at some of these alternative alignments looking for dinosaur bones, burial sites, tee-pee rings and those sorts of things. They don't necessarily stop a project – some of them could – but they could require analysis of a different alignment. They are also looking for historic homes and farmsteads, and those sorts of things. They are all part of the evaluation process and as we focus in on the preferred alternative, we will need to know what's out there to make the best decision.

[unidentified] – A woman was out here from Missoula . . . [inaudible] . . . walked around on my place . . . [inaudible]

D. James (BRW) – I’m guessing she was from Historical Research Associates, they are subcontracted with us to do the cultural resource survey work. You may have seen them, or you may be contacted by them over the next couple of months if they need to take another look at some of these alternatives.

On the issue of farmland segmentation, let me just speak to that for a minute. That’s another issue we have to address through this process. The Natural Resource Conservation Service designates farmlands as prime, statewide important, and locally important farmlands. If we have an alternative that unnecessarily impacts one of these designated farmlands, we will look at moving the alignment. Let me stress that these alternatives you see up here tonight are conceptual in nature. The engineers in our office drew these up based on comments that we’ve heard, and they are based purely on engineering feasibility. Does it work, does it improve on the existing alignment? There’s no preference here, there’s no preconceived notion that we’re going to go with one alignment over another regardless of what we hear from you.

Paul Belanger (Choteau) – What kind of criteria do you use to make sure that the gravel and equipment is noxious weed seed free, so we’re not spreading those weeds around anymore?

D. James (BRW) – There are seeding provisions written into all the contracts for fill material and – you’re grinning like you’ve dealt with this before and you don’t believe me. It will be coordinated with the County Weed Board, and special provisions will be written into the construction contracts.

We’re down to about 8:30, so about time to break and take your comments on the alignments shown up front here. Can I get two more questions?

Bert Guthrie (Choteau) – Darryl, I’ve got a question. You spoke of the Natural Resources Conservation Service. About a year ago, they told me I was going to have to burn my CRP. And they authorized me to do so under penalty of losing my payment. And so I did. But I had other agencies of the Federal government say “Oh that’s a travesty that you should do that, you’ll ruin the habitat for migratory waterfowl, for upland birds, for mule deer. . .” And here I am as a taxpayer paying several different agencies – now why would you use the Natural Resources Conservation Service as one of your authorities for going ahead with a project that is so controversial?

D. James (BRW) – The Natural Resource Conservation Service grew from the Soil Conservation Service who mapped all the soil types back in the early 60’s, and that’s what the farmland designations are based on. NRCS basically just helps us identify

what types of farmland are there – prime, unique, statewide important – and whether any special protection should be considered.

Bert Guthrie – Maybe your guidance is a little flawed.

D. James (BRW) – Well, that may be, but there's not a whole lot I can do about that at this point, but we can certainly talk about that as we go into the detailed alternatives and try to assess whether there's one alternative that's better than another. And we can talk about whether NRCS knows what they are talking about with regard to farmlands.

One more question – I'm not letting you go until I get one more question.

Tootie Rasmussen (Choteau) – If the historical guy calls me up and can't pronounce my last name, you know what I do to them? I'm not very nice to 'em.

D. James (BRW) – They're not soliciting [crowd laughter].

Tootie Rasmussen – Well I don't know if they're soliciting!

D. James (BRW) – And I don't think that counts as a question, I think that was a comment. Alright, let's go ahead and break, and again, please leave detailed written comments and let us know if we're on the right track here. We'll continue to refine these alternatives and be back in a few months to show you what we've come up with, and identify our preferred alternative.

Thanks for coming out – we really appreciate your participation.